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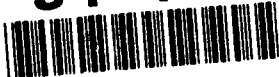
REMEDIAL INVESTIGATION BADGER ARMY AMMUNITION PLANT BARABOO, WISCONSIN

FINAL REMEDIAL INVESTIGATION REPORT APPENDIX DATA ITEM A009

APPENDICES D.2 THROUGH F
VOLUME 2 OF 7

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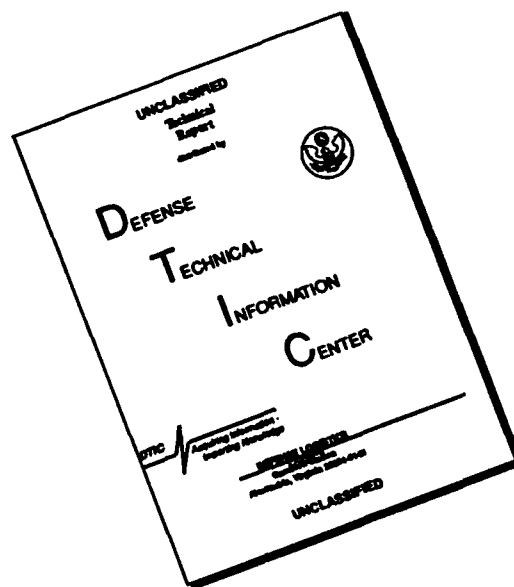
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**REMEDIAL INVESTIGATION
BADGER ARMY AMMUNITION PLANT**

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**REMEDIAL INVESTIGATION
BADGER ARMY AMMUNITION PLANT**

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(continued)

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Appendix D.2

Field Data Records - Soil, Sediments, and Surface Water

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FIELD DATA RECORD - SEDIMENT

PROJECT	USATHAMA-BAAP	SITE TYPE	POND	SAMPLING DATE	10.2.91
SITE ID	BPS-91-01	JOB NUMBER	6853-04	FILE NAME	CSO
LOCATION ACTIVITY	START: 0935 END: 0950	PROGRAM	C	WEATHER	overcast 60's rain

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE	0-3" IN	TYPE OF SEDIMENT:	CLAY SAND ORGANIC (trace) SILT GRAVEL OTHER	EQUIPMENT USED FOR COLLECTION:	GRAVITY CORER TULIP BULB PLANTER S.S. HAND SPOON ALUMINUM PAN PLASTIC SCOOP OTHER	DECONTAMINATION FLUIDS USED	POTABLE WATER POTABLE WATER WITH HIGH PRESSURE OTHER
TYPE OF SAMPLE COLLECTED	<input checked="" type="checkbox"/> DISCRETE <input type="checkbox"/> COMPOSITE						
SAMPLE OBSERVATIONS	ODOR COLORED	AMBIENT AIR	0.0 PPM	SAMPLE LOCATION	1.0 PPM	pH	NA UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	1165
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			1165
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C		DC	1166
SO4	KT07	4 DEG C			1166
NH3N2	USEPA 350.2	4 DEG C		EA	1167
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		DC	1168
BN/A	LM25	4 DEG C			1173
NG	LM27	4 DEG C			1169
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C			

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 85 bottles
EA: 1 bottle

See data sheet BPW.91.01
for diagram

SIGNATURE: vm/mr

RECEIVED BY: Nancy E. Rober

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

69102000

PROJECT USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE 10.2.91

SITE ID BPS-91-02

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY START: 1100 END: 1130

PROGRAM

C

WEATHER prt. sunny, 60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-1 FT

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND (fine)
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☒ COLORED dk green/black/tan AMBIENT AIR

0.0 PPM

SAMPLE LOCATION 0.0 PPM

pH NA UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			1180
<input checked="" type="checkbox"/> AL		4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG		4 DEG C			
<input checked="" type="checkbox"/> PB		4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)	Y9	4 DEG C			1180
<input checked="" type="checkbox"/> NH4	JD21	4 DEG C			
<input checked="" type="checkbox"/> SO4		4 DEG C			
<input checked="" type="checkbox"/> NH3N2	KF17	4 DEG C			1181
<input checked="" type="checkbox"/> TOC	KT07	4 DEG C			1182
<input checked="" type="checkbox"/> PH	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> VOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> BN/A	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> NG	LM23	4 DEG C			1183
<input checked="" type="checkbox"/> NAM	LM25	4 DEG C			1184
<input checked="" type="checkbox"/> DNT	LM27	4 DEG C			
	LN08	4 DEG C			
	LM23	4 DEG C			

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 5 bottles
EA: 1 bottle

See data sheet BPW.91.02 for diagram

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

B9103000

PROJECT USATHAMA-BAAP

SITE TYPE

POND

SITE ID BPS-91-03

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1200 END: 1230

PROGRAM

C

SAMPLING DATE

10.2.91

FILE NAME

CSO

WEATHER

cloudy, 60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

0-4 IN

TYPE OF SEDIMENT:

CLAY
SAND (med. & fine)
ORGANIC
SILT (same)
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLORED dk. green/black

AMBIENT

AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

NA

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NI
Mn
Zn
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LW28

LW23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

1195

1195

1196

1197

1198

1199

1203

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 5 bottles

EA: 1 bottle

↑ N

⊗ BPS-91-03

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Rofka

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PAGE 6 OF 8

FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE ID BPS-91-104

LOCATION ACTIVITY START: 1235 END: 1300

FIELD SAMPLING NUMBER 39104000

SITE TYPE NEBUER POND

JOB NUMBER 6853-04

PROGRAM C

SAMPLING DATE 10.2.91

FILE NAME CSO

WEATHER cloudy, 60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-6 IN

TYPE OF SAMPLE ☒ DISCRETE
☐ COMPOSITE

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

SAMPLE OBSERVATIONS ☐ ODOR
☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM pH NA UNITS

ANALYTICAL PARAMETERS

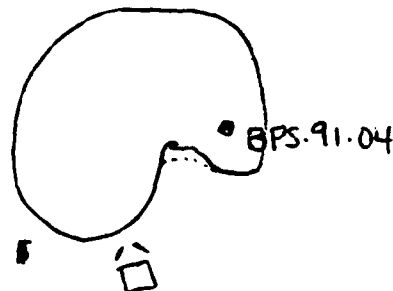
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)					
<input checked="" type="checkbox"/> AL	JS12	4 DEG C		DC	1210
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			1210
TCLP METALS (SPECIFIED BELOW)					
<input checked="" type="checkbox"/> NI	KF17	4 DEG C		DC	1211
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C		EA	1212
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		DC	1213 1218
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C			

NOTES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

EA: 1 bottle
DC: 5 bottles

TN



SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Roka

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PAGE 1 OF 8

FIELD DATA RECORD - SURFACE WATER

PROJECT USATHAMA-BAAP
 SITE ID BPW-91-01
 LOCATION ACTIVITY START: 0730 END: 0935

FIELD SAMPLING NUMBER 89101000
 SITE TYPE POND
 JOB NUMBER 6853-04
 PROGRAM C

SAMPLING DATE 10.2.91
 FILE NAME CSW
 WEATHER overcast, 60's rain

SURFACE WATER DATA

WATER DEPTH ~ 2 FT
 @ SAMPLE LOCATION

TEMPERATURE 14.1 VM DEG C.

SAMPLE LOCATION SKETCH BELOW? ☒ YES ☐ NO

TYPE OF SURFACE WATER:
 STREAM ☐
 RIVER ☐
 POND/LAKE ☒
 SEEP ☐

DEPTH OF SAMPLE FROM TOP OF WATER @ Surface

pH 7.3 UNITS

AMBIENT AIR SAMPLE LOCATION
0.0 PPM
0.0 PPM

EQUIPMENT USED FOR COLLECTION ☒ NONE, GRAB INTO BOTTLE
☐ BOMB SAMPLER
☐ PUMP

SPEC. COND. 206 umhos/cm

DECONTAMINATION FLUIDS USED:
☐ POTABLE WATER
☒ NONE

ANALYTICAL PARAMETERS

- ☒ TAL METALS (SPECIFIED BELOW)
- ☒ NIT
- ☒ SO4
- ☒ CL
- ☒ NH3N2
- ☒ TKN
- ☒ ALK
- ☒ HARD
- ☒ VOC
- ☒ B/NA
- ☒ NG
- ☒ DNT

METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
LL8	HNO3 TO pH<2	1000 ml P	<input checked="" type="checkbox"/>
TT09	H2SO4 TO pH<2	500 ml P	<input checked="" type="checkbox"/>
TT09	4 DEG C	1000 ml P	<input checked="" type="checkbox"/>
TF30	4 DEG C		
USEPA 351.1	H2SO4 TO pH<2	500 ml P	<input checked="" type="checkbox"/>
USEPA 310.1	4 DEG C	500 ml P	<input checked="" type="checkbox"/>
USEPA 130.2	HNO3 TO pH<2	(2) 40 ml	<input checked="" type="checkbox"/>
UM21	4 DEG C	(2) 1L AG	<input checked="" type="checkbox"/>
UM25	4 DEG C		
UM27	4 DEG C		
UM25	4 DEG C		

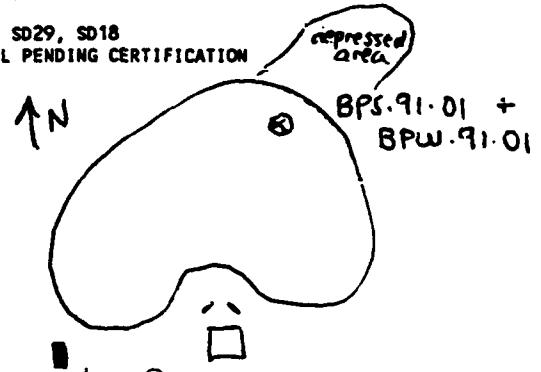
SAMPLE BOTTLE ID NUMBERS	Lab
1	DC
2	DC
3	DC
4	DC
5	EA
6	EA
7	EA
8	DC
55	EA
56	DC

NOTES

(LOCATION SKETCH?)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC UM19, UM26
 B/NA UM24
 TAL METALS (TOXIC ANALYTE LIST): AL, SB, AS, BA, BE, CD, CA, CR, CO, CU, FE, PB, MG, MN, HG, NI, K, SE, AG, NA, TL, V, ZN.
 SS12, AX8, CC8, SD25, SD29, SD18
 **METHOD NUMBER FOR TL PENDING CERTIFICATION

DC: 5 bottles
 EA: 4 bottles



SIGNATURE:

VM/ MR

RECEIVED BY:

Nancy E. Roka

8/9/89

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PAGE 3 OF 8

FIELD DATA RECORD - SURFACE WATER

PROJECT USATHAMA-BAAP
 SITE ID BPW-91-02
 LOCATION ACTIVITY START: 1055 END: 1100

SITE TYPE POND
 JOB NUMBER 6853-04
 PROGRAM C

FIELD SAMPLING NUMBER 89102000
 SAMPLING DATE 10-2-91
 FILE NAME CSW
 WEATHER prt. sunny, 66s

SURFACE WATER DATA

WATER DEPTH > 10 FT

DEPTH OF SAMPLE FROM TOP OF WATER @ Surface FT

EQUIPMENT USED ☒ NONE, GRAB INTO BOTTLE
☐ BOMB SAMPLER
☐ PUMP

TEMPERATURE 15.0 DEG C.

pH 7.8 UNITS

SPEC. COND. 304 umhos/cm

SAMPLE LOCATION ☒ YES
 SKETCH BELOW? ☐ NO

AMBIENT AIR SAMPLE LOCATION
0.0 PPM
0.0 PPM

TYPE OF SURFACE WATER:
☐ STREAM
☐ RIVER
☐ POND/LAKE
☐ SEEP

DECONTAMINATION FLUIDS USED:
☐ POTABLE WATER
☒ NONE

ANALYTICAL PARAMETERS

TAL METALS (SPECIFIED BELOW)

METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS	Lab
LL8	HN03 TO pH<2	1 L poly	<input checked="" type="checkbox"/>	9	DC
TT09	H2SO4 TO pH<2	500 ml P	<input checked="" type="checkbox"/>	10	DC
TT09	4 DEG C	1 L poly	<input checked="" type="checkbox"/>	11	DC
TF30	H2SO4 TO pH<2		<input checked="" type="checkbox"/>		
USEPA 351.1	USEPA 310.1 H2SO4 to pH<2	500 ml P	<input checked="" type="checkbox"/>	13	EA
USEPA 310.1	4 DEG C	500 ml P	<input checked="" type="checkbox"/>	14	EA
USEPA 130.2	HN03 TO pH<2	(2) 40 ml	<input checked="" type="checkbox"/>	15	EA
UM21	4 DEG C	(2) 1L AG	<input checked="" type="checkbox"/>	16	DC
UM25	4 DEG C		<input checked="" type="checkbox"/>		
UW27	4 DEG C		<input checked="" type="checkbox"/>		
UW25	4 DEG C		<input checked="" type="checkbox"/>		

NOTES

(LOCATION SKETCH?)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC UM19, UM26
 B/NA UM24

TAL METALS (TOXIC ANALYTE LIST): AL, SB, AS, BA, BE, CD, CA, CR, CO,
 CU, FE, PB, MG, MN, HG, NI, K, SE,
 AG, NA, TL, V, ZN.

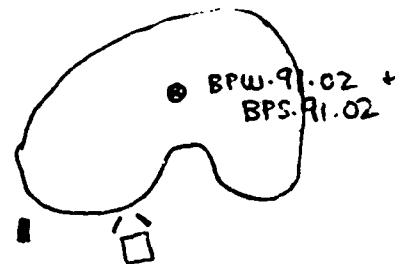
SS12, AX8, CC8, SD25, SD29, SD18

**METHOD NUMBER FOR TL PENDING CERTIFICATION

DC: 5 bottles

EA: 4 bottles

↑N



SIGNATURE: _____

vm/mr

RECEIVED BY: _____

Nancy E. Rora

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PAGE 7 OF 8

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

B9105000

PROJECT USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

10.2.91

SITE ID

BPS-91-05

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1305 END: 1330

PROGRAM

C

WEATHER

prt. Sunny, 60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

0 - > 12" W

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED ten, 1K green
black

AMBIENT

AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

NA

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)					
AL	JS12	4 DEG C			<u>1225</u>
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			<u>1225</u>
TCLP METALS (SPECIFIED BELOW)					
MIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			<u>1226</u>
NH3N2	USEPA 350.2	4 DEG C			<u>1227</u>
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			<u>1228</u> <u>1293</u>
BN/A	LM25	4 DEG C			<u>1229</u>
NG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C			

NOTES

(LOCATION SKETCH)

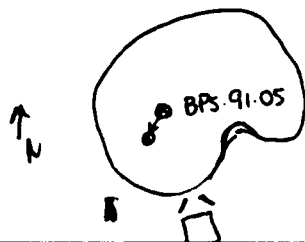
* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 5 bottles
EA: 1 bottle

Sediment sample extremely soft - corer would sink in bottom completely.



SIGNATURE:

V.M. / MR

RECEIVED BY:

Nancy E. Roka

ABB ENVIRONMENTAL SERVICES, INC

PAGE 8 OF 8

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

89106000

PROJECT USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

10.2.91

SITE ID BPS-91-06

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1335 END: 1400

PROGRAM

C

WEATHER

prt. sunny, 60's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-10 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☒ ODOR
☒ COLORED gray, black, tan

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

PH N/A UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CO
☒ CR
☒ HG
☒ PB
☒ NIT
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2
USEPA CE-81-1
SW846 METHOD 9045
LM23
LM25
LM27
LM08
LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC
DC
EA
DC

SAMPLE BOTTLE ID NUMBERS

1240
1240
1241
1242
1243
1244
1248

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 5 bottles
EA: 1 bottle

TN



SIGNATURE:

vm/mr

RECEIVED BY:

Vancy E. Rora

C. JORDAN
FIELD DATA RECCRD - SURFACE WATER

FIELD SAMPLING NO.

BPMW90C111

WEATHER

Sunny/75°

PROJECT

USATHAMA - BAAP

PROGRAM Q05

TG

SITE TYPE

SURFACE WATER

FILE NAME

CSO

JOB NUMBER

6298-07

SAMPLING DATE

27SEP90

SITE ID

BPMW90C111

LOCATION ACTIVITY

START: 1130

END: 1200

SURFACE WATER DATA

WATER DEPTH
& SAMPLE LOCATION

4 FT

TEMPERATURE

16.0 DEG. C

TYPE OF
SURFACE WATER

☐ STREAM
☒ POND/LAKE
☐ RIVER
☐ OTHER

DEPTH OF SAMPLE
FROM TOP OF WATER

1 FT

pH.....

8.6 UNITS

DECONTAMINATION
FLUIDS USED

☐ NONE
☒ POTABLE WATER

EQUIPMENT USED
FOR COLLECTION

☐ NONE, GRAB INTO BOTTLE
☒ OTHER Pucks Bottle

SPEC. COND.

76 uMhos

SAMPLE LOCATION
SKETCH BELOW

☒ YES
☐ NO

AMBIENT AIR VOA

0.00 PPM

SAMPLE LOCATION AIR VOA

— PPM

TEMPERATURE PROFILE

DEPTH OF MEASUREMENT

1 FT.

TEMPERATURE

16 DEG. C

DEPTH OF MEASUREMENT

4 FT.

TEMPERATURE

16 DEG. C

DEPTH OF MEASUREMENT

FT.

TEMPERATURE

DEG. C

☒ IF REQUIRED AT THIS LOCATION)
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION
METHOD

Bottle Size

SAMPLE
COLLECTED

SAMPLE BOTTLE ID'S

☒ CALCIUM
☒ ALUMINUM
☒ IRON
☒ LEAD
☒ MAGNESIUM
☒ SODIUM
☒ HARDNESS
☐ CHLORIDE DD
☒ ALKALINITY
☒ SULFATE, Chloride
☒ NITRATE & NITRITE

SW

HNO3 <2
HNO3 <2
HNO3 <2
HNO3 <2
HNO3 <2
HNO3 <2
HNO3 <2
4 DEG. C PD
4 DEG. C
4 DEG. C
H2SO4

500ml

500ml
125ml
125ml

☐
☐
☐
☒
☐
☐
☐
☐
☒
☒
☒

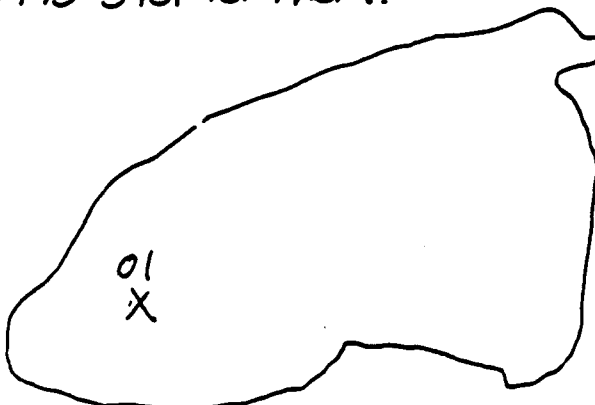
10
2
3

NOTES / SKETCH

Was not given method #'s for the analyses. Call Joanne Hale at (207) 775-5401 for them.

N
↑

01
X



10-08-89

SIGNATURE OF SAMPLER

M. G. H.

E. C. JORDAN
FIELD DATA RECORD - SURFACE WATER

FIELD SAMPLING NO.

B P W 9 C C 2 2

WEATHER

PROJECT USATNAMA - SAAP

PROGRAM Q05

SITE TYPE

SURFACE WATER

FILE NAME

CSO

JOB NUMBER

6298-07

SAMPLING DATE

27 SEP 90

SITE ID B P W - 9 C - C 2

LOCATION ACTIVITY

START:

1215

END:

1300

SURFACE WATER DATA

WATER DEPTH
& SAMPLE LOCATION

10 FT

TEMPERATURE

14 DEG. C

TYPE OF
SURFACE WATER

☐ STREAM
☒ POND/LAKE
☐ RIVER
☐ OTHER

DEPTH OF SAMPLE
FROM TOP OF WATER

7 FT

PH.....

9.0 UNITS

DECONTAMINATION
FLUIDS USED

☐ NONE
☒ POTABLE WATER

EQUIPMENT USED
FOR COLLECTION

☐ NONE, GRAB INTO BOTTLE
☒ OTHER Pace Bomb

SPEC. COND.

68 UNITS

SAMPLE LOCATION
SKETCH BELOW

☒ YES
☐ NO

AMBIENT AIR VOA

— PPM

SAMPLE LOCATION AIR VOA

— PPM

TEMPERATURE PROFILE

DEPTH OF MEASUREMENT

1 FT.

TEMPERATURE

19 DEG. C

DEPTH OF MEASUREMENT

5 FT.

TEMPERATURE

15 DEG. C

DEPTH OF MEASUREMENT

10 FT.

TEMPERATURE

14 DEG. C

☒ IF REQUIRED AT THIS LOCATION)
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION
METHOD

SAMPLE
COLLECTED

SAMPLE BOTTLE ID'S

Bottle Size

☒ CALCIUM

SM

HN03 <2

☒ ALUMINUM

HN03 <2

☒ IRON

HN03 <2

☒ LEAD

HN03 <2

☒ MAGNESIUM

HN03 <2

☒ SODIUM

HN03 <2

☒ HARDNESS

HN03 <2

☐ CHLORIDE, DO

4 DEG. C

☒ ALKALINITY

4 DEG. C

☒ SULFATE, Chloride

4 DEG. C

☒ NITRATE & NITRITE

N2S04

500 ml

500 ml

125 ml

125 ml

☐

☐

☐

☒

☐

☐

☐

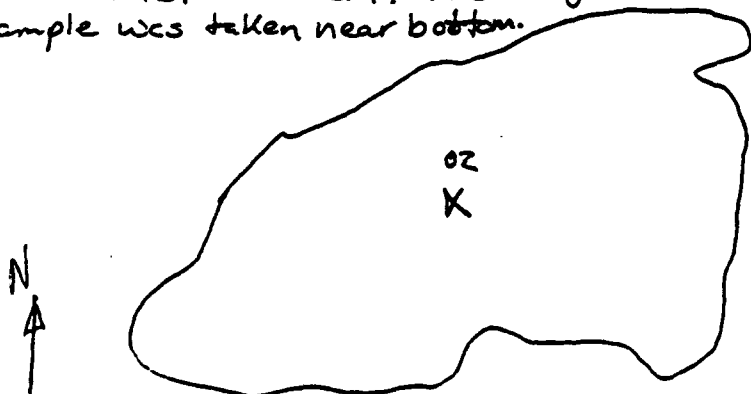
☒

☒

☒

NOTES / SKETCH

Was not given method #s for the analyses. Call Joanne Hale at (207) 775-5401 for them. Last digit of field sampling no. designates that sample was taken near bottom. (2)



BJS 10-08-89

SIGNATURE OF SAMPLER

[Handwritten Signature]

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PAGE 1 OF 20

FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE BUGR

SITE ID PBS-91-74

JOB NUMBER 6853-04

LOCATION ACTIVITY

START: 1315 END: 1320

PROGRAM C

SAMPLING DATE

9.30.91

FILE NAME

CSO

WEATHER

overcast, eds
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	967
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	EA 2 ²	✓	968 971
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC ✓	969

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

~~EA: 2 bottles~~ (NR)
~~DC: 4 bottles~~

EA: 2 bottles
DC: 2 bottles

* No tip available

SIGNATURE: VM/NE

RECEIVED BY: Nancy E. Rofa

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PAGE 2 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

27175000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.30.91

SITE ID PBS-91-75

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1325 END: 1330

PROGRAM

C

WEATHER

overcast, w.c.s
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER (oo)

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS		
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			337		
<input checked="" type="checkbox"/> AL		4 DEG C					
<input checked="" type="checkbox"/> CA		4 DEG C					
<input checked="" type="checkbox"/> NA		4 DEG C					
<input checked="" type="checkbox"/> CD		4 DEG C					
<input checked="" type="checkbox"/> CR		4 DEG C					
<input checked="" type="checkbox"/> HG	Y9	4 DEG C					
<input checked="" type="checkbox"/> PB	JD21	4 DEG C					
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			340		
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C					
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C					
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C					
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C					
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C					
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C			343	344	
<input checked="" type="checkbox"/> BN/A	LN25	4 DEG C			529		
<input checked="" type="checkbox"/> HG	LN27	4 DEG C					
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C					
<input checked="" type="checkbox"/> DNT	LN23	4 DEG C			346		

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LN17, LN26
B/NA LN20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/ME

RECEIVED BY:

Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 3 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99176000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.30.91

SITE ID

PBS-91-76

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1335 END: 1340

PROGRAM

C

WEATHER

overcast, 60's
breezy, rain

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

CLAY

SAND

ORGANIC

SILT *Some*

GRAVEL

OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER

TULIP BULB PLANTER

S.S. HAND SPOON

ALUMINUM PAN

PLASTIC SCOOP

OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☐ POTABLE WATER WITH

HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS		
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C		DC	976		
<input type="checkbox"/> AL	JS12	4 DEG C					
<input type="checkbox"/> CA		4 DEG C					
<input type="checkbox"/> NA		4 DEG C					
<input type="checkbox"/> CD		4 DEG C					
<input type="checkbox"/> CR		4 DEG C					
<input type="checkbox"/> HG	Y9	4 DEG C					
<input type="checkbox"/> PB	JD21	4 DEG C					
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C					
<input type="checkbox"/> NIT	KF17	4 DEG C					
<input type="checkbox"/> SO4	KT07	4 DEG C					
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C					
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C					
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C					
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	977	980	
<input type="checkbox"/> BN/A	LM25	4 DEG C					
<input type="checkbox"/> NG	LM27	4 DEG C					
<input type="checkbox"/> NAM	LN08	4 DEG C					
<input checked="" type="checkbox"/> DNT	LV23	4 DEG C		DC	978		

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: vm/mr

RECEIVED BY: Wmacy E. Roka

ABB ENVIRONMENTAL SERVICES, INC

PAGE 4 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9177000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 9.30.91

SITE ID PBS-91-77

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY START: 1355 END: 1400

PROGRAM

C

WEATHER

overcast/rain
80's, breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR

0 PPM

SAMPLE LOCATION

0 PPM

pH NA UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	985
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> AN	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	986 989
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C		DC	987

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

EA: 2 bottles
DC: 2 bottles

SIGNATURE: VM/NR
RECEIVED BY: Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 5 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9178000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-78

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 1410 END: 1415

PROGRAM

C

SAMPLING DATE

9.30.91

FILE NAME

CSO

WEATHER

overcast '60's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND some
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				<u>DC</u>	<u>994</u>			
<input type="checkbox"/> AL		4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CD		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG		4 DEG C						
<input type="checkbox"/> PB		4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input type="checkbox"/> NIT		4 DEG C						
<input type="checkbox"/> NO ₃		4 DEG C						
<input type="checkbox"/> NH ₄		4 DEG C						
<input type="checkbox"/> VOC		4 DEG C						
<input type="checkbox"/> SVOC		4 DEG C						
<input type="checkbox"/> BN/A		4 DEG C						
<input type="checkbox"/> NG		4 DEG C						
<input type="checkbox"/> NAM		4 DEG C						
<input type="checkbox"/> DNT		4 DEG C						
	JS12	4 DEG C						
	Y9	4 DEG C						
	JD21	4 DEG C						
	KF17	4 DEG C						
	KT07	4 DEG C						
	USEPA 350.2	4 DEG C						
	USEPA CE-81-1	4 DEG C						
	SW846 METHOD 9045	4 DEG C						
	LM23	4 DEG C		<u>EA</u>	<u>995</u>	<u>998</u>		
	LM25	4 DEG C						
	LM27	4 DEG C						
	LM28	4 DEG C						
	LM23	4 DEG C		<u>DC</u>	<u>996</u>			

NOES
LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

79179000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.30.91

SITE ID PBS-91-79

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1420 END: 1425

PROGRAM

C

WEATHER

overcast, 60's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

CLAY
SAND trace
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			349
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			352
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		EA	355 356
BN/A	LM25	4 DEG C			
HG	LM27	4 DEG C			
NAM	LM08	4 DEG C			
DNT	LM23	4 DEG C		DC	358

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: vm/ MR

RECEIVED BY: Vancy E. Rofa

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OLD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP SITE TYPE BUGR
 SITE ID PBS-91-80 JOB NUMBER 6853-04
 LOCATION ACTIVITY START: 1425 END: 1430 PROGRAM C

SAMPLING DATE 9.30.91
 FILE NAME CSO
 WEATHER overcast, 40's breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND some
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	1003
<input checked="" type="checkbox"/> AL		4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		DC EA	1004 1007
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	1005

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
 B/NA LM20
 PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
 JS12, B9, JD21, JD20, Y9.
 TCLP METALS: CD, CR, HG, PB.
 JS12, 40 CFR 261.24

DC: 24 bottles
 EA: 2 bottles

SIGNATURE: VM/ MR

RECEIVED BY: Nancy E. Rotha

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

79121000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

7.30.91

SITE ID PBS-91-81

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1440 END: 1445

PROGRAM

C

WEATHER

cloudy, 60's
brery

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	1012			
<input checked="" type="checkbox"/> AL		4 DEG C						
<input checked="" type="checkbox"/> CA		4 DEG C						
<input checked="" type="checkbox"/> NA		4 DEG C						
<input checked="" type="checkbox"/> CD		4 DEG C						
<input checked="" type="checkbox"/> CR		4 DEG C						
<input checked="" type="checkbox"/> HG	Y9	4 DEG C						
<input checked="" type="checkbox"/> PB	JD21	4 DEG C						
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C						
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C						
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C						
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		DC	1013	1016		
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C						
<input checked="" type="checkbox"/> NG	LW27	4 DEG C						
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C						
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C		DC	1014			

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

(MR) DC: 24 bottles
EA: 2 bottles

SIGNATURE: vm/mr

RECEIVED BY: Wanacy E. Rofa

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP SITE TYPE BUGR
 SITE ID PRS-91-82 JOB NUMBER 6853-04
 LOCATION ACTIVITY START: 1450 END: 1455 PROGRAM C

SAMPLING DATE 9.30.91
 FILE NAME CSO
 WEATHER cloudy, 60's
Breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-3 IN
 TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE
 TYPE OF SEDIMENT: ☒ CLAY ☒ SAND ☒ ORGANIC ☒ SILT ☒ GRAVEL ☐ OTHER
 EQUIPMENT USED FOR COLLECTION: ☒ GRAVITY CORER ☒ TULIP BULB PLANTER ☒ S.S. HAND SPOON ☒ ALUMINUM PAN ☒ PLASTIC SCOOP ☐ OTHER
 DECONTAMINATION FLUIDS USED ☒ POTABLE WATER ☐ POTABLE WATER WITH HIGH PRESSURE ☐ OTHER
 SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED
 AMBIENT AIR 0.0 PPM SAMPLE LOCATION 0.0 PPM pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input checked="" type="checkbox"/> AL	JS12	4 DEG C			361
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			364
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			367
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			368
<input checked="" type="checkbox"/> NG	LW27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C			370

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
 B/NA LM20
 PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
 JS12, B9, JD21, JD20, Y9.
 TCLP METALS: CD, CR, HG, PB.
 JS12, 40 CFR 261.24

DC: 24 bottles

EA: 2 bottles

(NR)

SIGNATURE: VM/MZ

RECEIVED BY: Nancy E. Rofia

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

79123000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.30.91

SITE ID P183-91-83

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1500 END: 1505

PROGRAM

C

WEATHER

cloudy, 60's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

☒ PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCLP METALS (SPECIFIED BELOW)
☐ NI
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☒ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

DC

DC

SAMPLE BOTTLE ID NUMBERS

1021

1022

1025

1023

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 24 bottles
EA: 2 bottles (MR)

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

09184000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-24

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1510 END: 1515

PROGRAM

C

SAMPLING DATE

9.30.91

FILE NAME

CSO

WEATHER

cloudy, 90's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0 PPM

SAMPLE

LOCATION

0.0 PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)				DC	1033
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)					
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
H3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		DC	1034
BN/A	LM25	4 DEG C			1037
NG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C		DC	1035

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 24 bottles (MR)
EA: 2 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Wancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9185000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGZ

SAMPLING DATE

9.30.91

SITE ID PBS-91-85

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

PROGRAM

C

WEATHER

cloudy, 60's
breezy

ACTIVITY START: 1535 END: 1540

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT

AIR

0.0 PPM

SAMPLE

LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			373			
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
	Y9 JD21	4 DEG C						
		4 DEG C						
	KF17 KT07 USEPA 350.2 USEPA CE-81-1 SW846 METHOD 9045	4 DEG C			376			
		4 DEG C						
		4 DEG C						
TCLP METALS (SPECIFIED BELOW)	LN23	4 DEG C			379			
		4 DEG C			532			
		4 DEG C						
		4 DEG C						
		4 DEG C						
	LN25 LN27 LN08 LN23	4 DEG C				380		
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: ~~24~~ bottles (M2)
EA: ~~2~~ bottles

SIGNATURE:

VM/M2

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA1816000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-86

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1545 END: 1550

PROGRAM

C

SAMPLING DATE

9.30.91

FILE NAME

CSO

WEATHER

cloudy, '60's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC ✓	1039
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG		4 DEG C			
PB		4 DEG C			
TCLP METALS (SPECIFIED BELOW)	Y9	4 DEG C			
NIT	JD21	4 DEG C			
NO3		4 DEG C			
NO4		4 DEG C			
NO5		4 DEG C			
NO6		4 DEG C			
NO7		4 DEG C			
NO8		4 DEG C			
NO9		4 DEG C			
NO10		4 DEG C			
NO11		4 DEG C			
NO12		4 DEG C			
NO13		4 DEG C			
NO14		4 DEG C			
NO15		4 DEG C			
NO16		4 DEG C			
NO17		4 DEG C			
NO18		4 DEG C			
NO19		4 DEG C			
NO20		4 DEG C			
NO21		4 DEG C			
NO22		4 DEG C			
NO23		4 DEG C			
NO24		4 DEG C			
NO25		4 DEG C			
NO26		4 DEG C			
NO27		4 DEG C			
NO28		4 DEG C			
NO29		4 DEG C			
NO30		4 DEG C			
NO31		4 DEG C			
NO32		4 DEG C			
NO33		4 DEG C			
NO34		4 DEG C			
NO35		4 DEG C			
NO36		4 DEG C			
NO37		4 DEG C			
NO38		4 DEG C			
NO39		4 DEG C			
NO40		4 DEG C			
NO41		4 DEG C			
NO42		4 DEG C			
NO43		4 DEG C			
NO44		4 DEG C			
NO45		4 DEG C			
NO46		4 DEG C			
NO47		4 DEG C			
NO48		4 DEG C			
NO49		4 DEG C			
NO50		4 DEG C			

NOTES

LOCATION SKETCH

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 24 bottles (MR)
EA: 2 bottles

SIGNATURE: vm/mr

RECEIVED BY: V/Vancy E. Rofa

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PAGE 15 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P7187000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 9.30.91

SITE ID PBS-91-87

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY START: 1555 END: 1600

PROGRAM

C

WEATHER

cloudy, 60's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER rock
+ debris (wire, ...)

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

C.O PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				<input checked="" type="checkbox"/> DC	<u>1048</u>
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		<input checked="" type="checkbox"/> DC	<u>1049</u> <u>1052</u>
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C		<input checked="" type="checkbox"/> DC	<u>1050</u>

NOES (LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 24 bottles (MR)
~~EA: 2 bottles~~

SIGNATURE: VM/MR
RECEIVED BY: Wancy E. Roca

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP
 SITE ID PBS-71-88
 LOCATION ACTIVITY START: 1600 END: 1605

P9188000
 FIELD SAMPLING NUMBER ~~PBS-71-88~~
 SITE TYPE BUGR
 JOB NUMBER 6853-04
 PROGRAM C

SAMPLING DATE 9.30.91
 FILE NAME CSO
 WEATHER Cloudy, 60's breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-4 IN
 TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE
 TYPE OF SEDIMENT: CLAY SAND *Some* ORGANIC SILT GRAVEL OTHER
 EQUIPMENT USED FOR COLLECTION: GRAVITY CORER TULIP BULB PLANTER S.S. HAND SPOON ALUMINUM PAN PLASTIC SCOOP OTHER
 DECONTAMINATION FLUIDS USED ☒ POTABLE WATER ☐ POTABLE WATER WITH HIGH PRESSURE ☐ OTHER
 SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED
 AMBIENT AIR 0.0 PPM SAMPLE LOCATION 0.0 PPM pH — UNITS

ANALYTICAL PARAMETERS

METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	4 DEG C			385
AL	4 DEG C			
CA	4 DEG C			
NA	4 DEG C			
CD	4 DEG C			
CR	4 DEG C			
HG	4 DEG C			
PB	4 DEG C			
TCMP METALS (SPECIFIED BELOW)	4 DEG C			388
NIT	4 DEG C			
SO4	4 DEG C			
NH3N2	4 DEG C			
TOC	4 DEG C			
PH	4 DEG C			
VOC	4 DEG C			391 392
BN/A	4 DEG C			
NG	4 DEG C			
NAM	4 DEG C			
DNT	4 DEG C			394

NOES
 LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
 B/NA LM20
 PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
 JS12, B9, JD21, JD20, Y9.
 TCMP METALS: CD, CR, HG, PB.
 JS12, 40 CFR 261.24

DC: 24 bottles (MR)
~~EA: 2 bottles~~

SIGNATURE: VM/ME
 RECEIVED BY: Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

SITE ID PBS-91-89

JOB NUMBER

LOCATION ACTIVITY START: 1520 END: 1525

PROGRAM

SAMPLING DATE

FILE NAME

WEATHER

P9129000

BUGR

6853-04

C

9.30.91

CSO

cloudy, 60s
brcey

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> AL	JS12	4 DEG C		DC	1057
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NH	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		DC (MR)	1058 1061
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	1059

NOBS
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, NG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles (MR)
EA: 2 bottles

SIGNATURE: vm/mr

RECEIVED BY: Uvancy E. Rofka

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PAGE 1 OF 6

DATA RECORD - SEDIMENT		FIELD SAMPLING NUMBER	<u>R9133000</u>	SAMPLING DATE	<u>10.3.91</u>
PROJECT	<u>USATHAMA-BAAP</u>	SITE TYPE	<u>DTCH</u>	FILE NAME	<u>CSO</u>
TE ID	<u>RPS-91-33</u>	JOB NUMBER	<u>6853-04</u>	WEATHER	<u>cloudy, 60s rain</u>
LOCATION	START: <u>1555</u> END: <u>1600</u>		PROGRAM	<u>C</u>	

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE	<u>0-3</u> IN	TYPE OF SEDIMENT:	<input checked="" type="checkbox"/> CLAY <input checked="" type="checkbox"/> SAND <input type="checkbox"/> ORGANIC <input type="checkbox"/> SILT <input type="checkbox"/> GRAVEL <input type="checkbox"/> OTHER	EQUIPMENT USED FOR COLLECTION:	<input checked="" type="checkbox"/> GRAVITY CORER <input checked="" type="checkbox"/> TULIP BULB PLANTER <input type="checkbox"/> S.S. HAND SPOON <input type="checkbox"/> ALUMINUM PAN <input type="checkbox"/> PLASTIC SCOOP <input type="checkbox"/> OTHER	DECONTAMINATION FLUIDS USED	<input checked="" type="checkbox"/> POTABLE WATER <input type="checkbox"/> POTABLE WATER WITH HIGH PRESSURE <input type="checkbox"/> OTHER
TYPE OF SAMPLE COLLECTED	<input checked="" type="checkbox"/> DISCRETE <input type="checkbox"/> COMPOSITE						
SAMPLE OBSERVATIONS	<input type="checkbox"/> ODOR <input type="checkbox"/> COLORED	AMBIENT AIR	<u>—</u> PPM	SAMPLE LOCATION	<u>—</u> PPM	pH	<u>—</u> UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SW846 METHOD 9045	4 DEG C			
	LM23	4 DEG C			
	LM25	4 DEG C			
	LM27	4 DEG C			
	LM08	4 DEG C			
	LM23	4 DEG C			

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

No TIF available

DC: 1 bottle

* Resampled for missed hold time

SIGNATURE: [Signature]

RECEIVED BY: [Signature]

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9134000

PROJECT

USATHAMA-BALP

SITE TYPE

DTCH

SAMPLING DATE

9.18.91

SITE ID

RIPS-91-34

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1430

END: 1435

PROGRAM

C

WEATHER

prt. Sunny, 40's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little
☒ ORGANIC
☒ SILT
☒ GRAVEL trace
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCPL METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ B/A
☐ NG
☐ NAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC
EA
DC

2026

2029

2027

2027

2029

2030

2031

2032

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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DATA RECORD - SEDIMENT		FIELD SAMPLING NUMBER	R 9 1 3 4 0 0 0
PROJECT	USATHAMA-BAAP	SITE TYPE	DTCH
TE ID	RFS-91-34	JOB NUMBER	6853-04
LOCATION		PROGRAM	C
START:	1615	END:	1820
		SAMPLING DATE	10.3.91
		FILE NAME	CSO
		WEATHER	cloudy 70°S

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE	1-5 IN	TYPE OF SEDIMENT:	EQUIPMENT USED FOR COLLECTION:	DECONTAMINATION FLUIDS USED
TYPE OF SAMPLE COLLECTED	<input checked="" type="checkbox"/> DISCRETE <input type="checkbox"/> COMPOSITE	<input checked="" type="checkbox"/> CLAY <input checked="" type="checkbox"/> SAND <input checked="" type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> SILT <input checked="" type="checkbox"/> GRAVEL <input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> GRAVITY CORER <input checked="" type="checkbox"/> TULIP BULB PLANTER <input checked="" type="checkbox"/> S.S. HAND SPOON <input checked="" type="checkbox"/> ALUMINUM PAN <input checked="" type="checkbox"/> PLASTIC SCOOP <input type="checkbox"/> OTHER	<input type="checkbox"/> POTABLE WATER <input type="checkbox"/> POTABLE WATER WITH HIGH PRESSURE <input type="checkbox"/> OTHER
SAMPLE OBSERVATIONS	<input type="checkbox"/> ODOR <input type="checkbox"/> COLORED	AMBIENT AIR	SAMPLE LOCATION	PH
		PPM	PPM	UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION M ⁺ °	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 F			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SW846 METHOD 9045	4 DEG C			
	LM23	4 DEG C			
	LM25	4 DEG C			
	LM27	4 DEG C			
	LN08	4 DEG C			
	LM23	4 DEG C			

NOES
LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

* Resampled for missed hold time
DC: 1 bottle

SIGNATURE: Y. M. / MK
RECEIVED BY: W. V. / E. R. B. B.

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9135000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9-18-91

SITE ID RPS-91-35

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

PROGRAM

C

ACTIVITY

START: 1425 END: 1430

WEATHER

prt. sunny, 40s

windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

-

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SM846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> HG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

DC
EA
DC

2047
2048
2049
2050
2051
2052
2053

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Roka

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PAGE 4 OF 6

DATA RECORD - SEDIMENT FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE DITCH

SAMPLING DATE 10.3.91

TE ID RPS-91-35

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION START: 1610 END: 1615

PROGRAM C

WEATHER cloudy, 60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR
☐ COLORED

AMBIENT AIR PPM

SAMPLE LOCATION PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)		4 DEG C			
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
NG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SUB46 METHOD 9045	4 DEG C			
	LM23	4 DEG C			
	LM25	4 DEG C			
	LM27	4 DEG C			
	LM08	4 DEG C			
	LM23	4 DEG C			

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 1 bottles

* Resampled for missed hold time

SIGNATURE: V. M. MC

RECEIVED BY: L. M. E. R. R.

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT

USATHAMA-BAAP

SITE 1: PE

DTCH

SAMPLING DATE

9.18.91

SITE ID

RPS-91-36

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1445 END: 1455

PROGRAM

C

WEATHER

Sunny, 40's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TC
☐ NI
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BNA
☐ NG
☐ NAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

XF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC

EA

DC

2068

2070

2069

2071

2072

2073

2074

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

NR/vm

RECEIVED BY:

Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 6 OF 6

DATA RECORD - SEDIMENT		FIELD SAMPLING NUMBER	R9136000	SAMPLING DATE	10.3.91
PROJECT	USATHAMA-BAAP	SITE TYPE	DTCL	FILE NAME	CSO
TE ID	RIPS-911-36	JOB NUMBER	6853-04	WEATHER	cloudy. 965
LOCATION	START: 1620	PROGRAM	C		
TIVITY	END: 1625				

SEDIMENT DATA

DEPTH OF EDIMENT SAMPLE	1-5 IN	TYPE OF SEDIMENT:	EQUIPMENT USED FOR COLLECTION:	DECONTAMINATION FLUIDS USED
TYPE OF SAMPLE COLLECTED	<input checked="" type="checkbox"/> DISCRETE <input type="checkbox"/> COMPOSITE	<input checked="" type="checkbox"/> CLAY <input type="checkbox"/> SAND <input type="checkbox"/> ORGANIC <input type="checkbox"/> SILT <input type="checkbox"/> GRAVEL <input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> GRAVITY CORER <input type="checkbox"/> TULIP BULB PLANTER <input type="checkbox"/> S.S. HAND SPOON <input type="checkbox"/> ALUMINUM PAN <input type="checkbox"/> PLASTIC SCOOP <input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> POTABLE WATER <input type="checkbox"/> POTABLE WATER WITH HIGH PRESSURE <input type="checkbox"/> OTHER
SAMPLE OBSERVATIONS	<input type="checkbox"/> ODOR <input type="checkbox"/> COLORED	AMBIENT AIR	SAMPLE LOCATION	PH
		PPM	PPM	UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
NI	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SW846 METHOD 9045	4 DEG C			
	LM23	4 DEG C			
	LM25	4 DEG C			
	LM27	4 DEG C			
	LM08	4 DEG C			
	LM23	4 DEG C			

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, SE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 1 bottles

* Resampled for missed
hold time

SIGNATURE: V. M. M.
RECEIVED BY: V. M. M. E. R. R.

ABB ENVIRONMENTAL SERVICES, INC

PAGE 1 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9137000

PROJECT

USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

9.19.91

SITE ID

RPS-91-37

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0820 END: 0830

PROGRAM

C

WEATHER

Sunny, 40's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH NA UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> ED		4 DEG C			2089
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG		4 DEG C			
<input checked="" type="checkbox"/> PB		4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)	Y9	4 DEG C			
<input checked="" type="checkbox"/> NI	JD21	4 DEG C			
<input checked="" type="checkbox"/> SO4		4 DEG C			2091
<input checked="" type="checkbox"/> NH3N2	KF17	4 DEG C			2090
<input checked="" type="checkbox"/> TOC	KT07	4 DEG C			
<input checked="" type="checkbox"/> pH	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> VOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> BN/A	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> HG	LM23	4 DEG C			2092
<input checked="" type="checkbox"/> NAM	LM25	4 DEG C			2093
<input checked="" type="checkbox"/> DNT	LW27	4 DEG C			2094
	LN08	4 DEG C			2095
	LW23	4 DEG C			

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 2 OF 20

DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9138000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SITE ID RPS-91-38

JOB NUMBER

6853-04

LOCATION ACTIVITY START: 0835 END: 0840

PROGRAM

C

SAMPLING DATE

9.19.91

FILE NAME

CSO

WEATHER

Sunny, 40's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-6 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR

00

PPM

SAMPLE LOCATION

C.O

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CO		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SW846 METHOD 9045	4 DEG C			
	LM23	4 DEG C			
	LM25	4 DEG C			
	LM27	4 DEG C			
	LN08	4 DEG C			
	LM23	4 DEG C			
PH					
VOC					
BN/A					
HG					
XAM					
DNT					

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CO, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CO, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 3 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9139000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.19.91

SITE ID

RPS-91-39

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0845 END: 0850

PROGRAM

C

WEATHER

Sunny, °40's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT trace
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			2131
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			2133
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			2132
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			2134
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			2135
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			2136
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			2137

DC {
EA {
DC {

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/ME

RECEIVED BY:

Nancy E. Rofca

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DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9140000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.19.91

SITE ID R1P3-91-40

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0855

END:

0900

PROGRAM

C

WEATHER

Sunny, 040s
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND

☒ ORGANIC

☒ SILT

☒ GRAVEL

☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☒ POTABLE WATER WITH

HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NI
PH
VOC
BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC
EA
DC

2152

2154

2153

2155

2156

2157

2158

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE:

Vm/MR

RECEIVED BY:

Nancy E Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 5 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

RA14,000

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SITE ID RP3-91-41

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0905 END: 0910

PROGRAM

C

SAMPLING DATE

9.19.91

FILE NAME

CSO

WEATHER

Sunny, 94°S
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☒ COMPOSITE

SAMPLE OBSERVATIONS

☒ ODOR
☒ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)		4 DEG C			
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LN23	4 DEG C			
BN/A	LN25	4 DEG C			
HG	LN27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LN23	4 DEG C			

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LN17, LN26
B/NA LN20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: vm/mc

RECEIVED BY: Vivian E Rota

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PAGE 7 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R7145000

PROJECT USATHAMA-BAAP

SITE TYPE

DTLH

SAMPLING DATE 9.19.91

SITE ID RPS-91-43

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 0925 END: 0930

PROGRAM

C

WEATHER Sunny, 70's

moder

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED
☒ very rocky in sample area

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM25	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
S/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, NG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: Vin/ME

RECEIVED BY: Nancy E Popa

BB ENVIRONMENTAL SERVICES, INC

PAGE 8 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

29141000

PROJECT

USATHAMA-BAAP

SITE TYPE

OTC

SAMPLING DATE

7.17.91

SITE ID

RPS-91-44

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0940 END: 0945

PROGRAM

C

WEATHER

Sunny 80s
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☒ COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLOR

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BN/A	LM25	4 DEG C			
HG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
ONT	LM23	4 DEG C			

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Kofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 9 OF 9

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

29145000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.19.91

SITE ID RPS-91-45

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0955 END: 1000

PROGRAM

C

WEATHER

Surf. 90's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-6 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED light brown

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BN/A	LM25	4 DEG C			
HG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Kosta

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R7144000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9-9-01

SITE ID

RPS-71-45

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1005 END: 1010

PROGRAM

C

WEATHER

Sunny 7403

breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND fine

☒ ORGANIC

☒ SILT white

☒ GRAVEL

☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☒ POTABLE WATER WITH

HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE

☒ DISCRETE

COLLECTED

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

-

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> AL	JS12	4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> HG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NH	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

vm/mc

RECEIVED BY:

Vivian E. Roka

BB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

89-12000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9/17/91

SITE ID

RFS-91-48

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1145 END: 1150

PROGRAM

C

WEATHER

cloudy, 70's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND some
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			2320
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			2322
<input type="checkbox"/> SO4	KT07	4 DEG C			2321
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			2323
<input type="checkbox"/> BN/A	LM25	4 DEG C			2324
<input checked="" type="checkbox"/> HG	LM27	4 DEG C			2325
<input checked="" type="checkbox"/> NHAM	LN08	4 DEG C			2326
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

plastic scoop not very effective at getting through
grass + roots.

SIGNATURE:

UM/MK

RECEIVED BY:

Wanay E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

89-47000

PROJECT

USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

9.12.91

SITE ID

RPS-91-49

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1155

END: 1200

PROGRAM

C

WEATHER

cloudy, breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-4

IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED
☒ COMPACT

AMBIENT
AIR

00

PPM

SAMPLE
LOCATION

00

PPM

PH

-

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			2341
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NI	KF17	4 DEG C			2343
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			2342
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			2344
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			2345
<input checked="" type="checkbox"/> HAM	LN08	4 DEG C			2346
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			2347

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC 3 bottles
EA 1 bottles

plastic scoop still not very effective Will continue
to use tulip bulb planter.

SIGNATURE:

Von/1112

RECEIVED BY:

Wendy E. Koria

ABB ENVIRONMENTAL SERVICES, INC

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DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

SITE ID RPS-91-50

JOB NUMBER

6853-04

LOCATION ACTIVITY START: 1210 END: 1215

PROGRAM

C

SAMPLING DATE

7.9.91

FILE NAME

CSO

WEATHER

Cloudy 44°C
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND trace
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR

00 PPM

SAMPLE LOCATION

00 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SWB46 METHOD 9045	4 DEG C			
PH	LM23	4 DEG C			
VOC	LM25	4 DEG C			
BN/A	LM27	4 DEG C			
NG	LM28	4 DEG C			
NAM	LM23	4 DEG C			
DNT					

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, NG, PB.
JS12, 40 CFR 261.24

DC 3 bottles
EA 1 bottle

SIGNATURE: VM/MP

RECEIVED BY: Mary E. Rosta

ABB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R7151000

PROJECT USATHAMA-BAAP

SITE TYPE DICH

SAMPLING DATE 9.19.91

SITE ID R7151000

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1220 END: 1225

PROGRAM C

WEATHER cloudy -40s
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 00 PPM

SAMPLE LOCATION 00 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> HG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE: VM/NR

RECEIVED BY: Nancy E. Rotka

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP
 SITE ID RIPS-91-52
 LOCATION ACTIVITY
 START: 1230 END: 1235

FIELD SAMPLING NUMBER 29152000
 SITE TYPE DTCH
 JOB NUMBER 6853-04
 PROGRAM C

SAMPLING DATE 9.19.91
 FILE NAME CSO
 WEATHER cloudy, 40's
moety

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:
☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:
☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED
☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED
☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS
☐ ODOR
☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM PH - UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SW846 METHOD 9045	4 DEG C			
PH	LM23	4 DEG C			
VOC	LM25	4 DEG C			
BN/A	LM27	4 DEG C			
NG	LN08	4 DEG C			
NAM	LM23	4 DEG C			
DNT					

NOES
 LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
 B/NA LM20
 PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
 JS12, 89, JD21, JD20, Y9.
 TCLP METALS: CD, CR, HG, PB.
 JS12, 40 CFR 261.24

DC: 3 bottles
 EA: 1 bottle

SIGNATURE: Vm/MC
 RECEIVED BY: Nancy E. Rota

ABB ENVIRONMENTAL SERVICES, INC

PAGE 17 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9153000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.14.91

SITE ID

RFS-91-53

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 1245

END: 1250

PROGRAM

C

WEATHER

cloudy, 40's

brzy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

- ☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT little
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

- ☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

- ☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

- ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLOR

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.2

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> AL	JS12	4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VMI/VR

RECEIVED BY:

Wendy E. Rota

BB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

27154000

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

7.9.91

SITE ID RPS-91-54

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1300

END: 1305

PROGRAM

C

WEATHER

cloudy, 74°F
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED
☒ rocky location

AMBIENT AIR

00

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> IT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			

DC

EA

DC

2446

2448

2449

2451

2450

2451

2450

NOES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/NRE

RECEIVED BY:

W. J. E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

88155000

PROJECT

USATHAMA-BAAP

SITE TYPE

DC-4

SAMPLING DATE

9.2.7.

SITE ID

RP3-91-153

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1315

END: 1320

PROGRAM

C

WEATHER

cloudy, 70s
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND *some*
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			2467
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE:

VMO/AR

RECEIVED BY:

William E. Rofa

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PAGE 20 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

89156000

PROJECT USATHAMA-BAAP

SITE TYPE

DRH

SAMPLING DATE

9.17.9

SITE ID RPS-911-56

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1320 END: 1330

PROGRAM

C

WEATHER

cloudy, 40's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			2482
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			2490
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			2489
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			2491
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			2492
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			2493
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			2494

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/VR

RECEIVED BY:

Nancy E Rofa

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PAGE 1 OF 2

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

RAIS7000

PROJECT

USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

7-20-91

SITE ID

RPS-91-57

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0825 END: 0835

PROGRAM

C

WEATHER

Sunny, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			2509
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> MIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			2512
<input checked="" type="checkbox"/> HAM	LN08	4 DEG C			2513
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			2514
					2515

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: vm/rr

RECEIVED BY: Nancy E. Kotka

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PAGE 2 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9158000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

7-20-91

ITE ID

RPS-91-158

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0840 END: 0845

PROGRAM

C

WEATHER

Sunny, 70°

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)		4 DEG C			
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCMP METALS (SPECIFIED BELOW)		4 DEG C			
IT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BN/A	LM25	4 DEG C			
HG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C			

DC {
EA {
D {

2530
2532
2531
2533
2534
2535
2536

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCMP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/MR

RECEIVED BY:

William E. Kerber

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PAGE 3 OF 2

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

89157000

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

7-20-91

SITE ID RIPS-91-59

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0900 END: 0905

PROGRAM

C

WEATHER

Cloudy, 80s

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

00 PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NH	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LV23	4 DEG C			

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM25
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

Vm/AR

RECEIVED BY:

Wmmy E. Rofa

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PAGE 4 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9150000

PROJECT: USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.20.91

SITE ID RPS-91-60

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0915 END: 0720

PROGRAM

C

WEATHER

Sunny, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	K107	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

Vro/MR

RECEIVED BY:

Wm E. Rofa

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PAGE 5 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R0161000

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

9.20.91

SITE ID

RPS-91-61

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0925 END: 0930

PROGRAM

C

WEATHER

Sunny, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND

☒ ORGANIC

☒ SILT some

☒ GRAVEL

☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☒ POTABLE WATER WITH HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

— UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCLP METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM28

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC

EA

DC

2543

2545

2544

2546

2547

2548

2549

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Kober

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PAGE 6 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R7162000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTC

SAMPLING DATE

9.20.97

SITE ID

RPS-91-62

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0940 END: 0945

PROGRAM

C

WEATHER

Sunny, 75's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☐ CLAY
☒ SAND
☐ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SWB46 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> HAM	LNO8	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			

NOES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E Kotia

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PAGE 7 OF 2

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

RR1631000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

7.20.91

SITE ID RIPS-91-63

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0950

END: 0955

PROGRAM

C

WEATHER

Sunny, 95°S

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG		4 DEG C			
PB	Y9	4 DEG C			
TCLP METALS (SPECIFIED BELOW)	JD21	4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BW/A	LM25	4 DEG C			
HG	LM27	4 DEG C			
HAH	LN08	4 DEG C			
DNT	LW23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: VM/DR

RECEIVED BY: Nancy E. Rota

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PAGE 8 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R7154000

PROJECT USATHAMA-BAAP

SITE TYPE DTCH

SAMPLING DATE 9.20.91

SITE ID RPS-911-64

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1020 END: 1025

PROGRAM C

WEATHER Sunny, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

CLAY
SAND trace
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 00 PPM

SAMPLE LOCATION 0.0 PPM pH - UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG		4 DEG C			
PB		4 DEG C			
TCLP METALS (SPECIFIED BELOW)	Y9	4 DEG C			
NI	JD21	4 DEG C			
SO4		4 DEG C			
NH3N2	KF17	4 DEG C			
TOC	KT07	4 DEG C			
PH	USEPA 350.2	4 DEG C			
VOC	USEPA CE-81-1	4 DEG C			
BN/A	SW846 METHOD 9045	4 DEG C			
NG	LM23	4 DEG C			
NAM	LM25	4 DEG C			
DNT	LM27	4 DEG C			
	LN08	4 DEG C			
	LM23	4 DEG C			

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottles

SIGNATURE: vm/mr

RECEIVED BY: Wainey E. Rofa

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PAGE 9 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

89163000

SAMPLING DATE

7/20/91

PROJECT USATHAMA-BAAP

SITE TYPE

DCH

SITE ID RFS-71-165

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1025 END: 1030

PROGRAM

C

WEATHER

Sunny, 95°S

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☒ COMPOSITE

SAMPLE OBSERVATIONS

☒ ODOR
☒ COLORED
☒ moist

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH N/A UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input checked="" type="checkbox"/> AL		4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LW27	4 DEG C			
<input checked="" type="checkbox"/> HAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VNO/MC

RECEIVED BY:

Wmmy E Portia

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PAGE 10 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9166000

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

9-20-91

SITE ID RPS-91-66

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1045 END: 1050

PROGRAM

C

WEATHER

Sunny 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC trace
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

DC

EA

DC

2698
2699
2700
2701
2702
2703
2704

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottles

SIGNATURE: VM/VR

RECEIVED BY: W. Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

PROJECT	USATHAMA-BAAP	SITE TYPE	DITCH	SAMPLING DATE	9.20.91
SITE ID	RPS-91-67	JOB NUMBER	6853-04	FILE NAME	CSO
LOCATION ACTIVITY	START: 1055 END: 1100	PROGRAM	C	WEATHER	Sunny 150's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE	1-4 IN	TYPE OF SEDIMENT:	EQUIPMENT USED FOR COLLECTION:	DECONTAMINATION FLUIDS USED
TYPE OF SAMPLE COLLECTED	<input checked="" type="checkbox"/> DISCRETE <input type="checkbox"/> COMPOSITE	<input checked="" type="checkbox"/> CLAY <input type="checkbox"/> SAND <input checked="" type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> SILT <i>some</i> <input type="checkbox"/> GRAVEL <input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> GRAVITY CORER <input type="checkbox"/> TULIP BULB PLANTER <input checked="" type="checkbox"/> S.S. HAND SPOON <input type="checkbox"/> ALUMINUM PAN <input type="checkbox"/> PLASTIC SCOOP <input type="checkbox"/> OTHER	<input type="checkbox"/> POTABLE WATER <input type="checkbox"/> POTABLE WATER WITH HIGH PRESSURE <input type="checkbox"/> OTHER
SAMPLE OBSERVATIONS	<input type="checkbox"/> ODOR <input type="checkbox"/> COLORED	AMBIENT AIR	SAMPLE LOCATION	pH
		0.0 PPM	0.0 PPM	— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR	Y9	4 DEG C			2719
<input checked="" type="checkbox"/> HG	JD21	4 DEG C			2721
<input checked="" type="checkbox"/> PB		4 DEG C			2720
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NI	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			2722
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			2723
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			2724
					2725

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rafter

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9-20-91

SITE ID

RIPS-91-68

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

START: 1105

END: 1110

PROGRAM

C

WEATHER

Sunny, 950's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

CLAY

SAND

ORGANIC 1442

SILT

GRAVEL

OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER

TULIP BULB PLANTER

S.S. HAND SPOON

ALUMINUM PAN

PLASTIC SCOOP

OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER

POTABLE WATER WITH

HIGH PRESSURE

OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE

COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLOR

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)		4 DEG C			
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
pH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BN/A	LM25	4 DEG C			
HG	LW27	4 DEG C			
NAM	LNO8	4 DEG C			
DNT	LW23	4 DEG C			

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/mr

RECEIVED BY:

Walter E. Roria

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PAGE 15 OF 2

FIELD DATA RECORD - SURFACE WATER

FIELD SAMPLING NUMBER

R7101000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9/20/91

SITE ID

RFW-91-01

JOB NUMBER

6853-04

FILE NAME

CSW

LOCATION ACTIVITY

START: 1300

END: 1305

PROGRAM

C

WEATHER

Surf, 76°S

SURFACE WATER DATA

WATER DEPTH

1-2"

2 SAMPLE LOCATION

TEMPERATURE

22 DEG C.

SAMPLE LOCATION SKETCH BELOW? ☒ YES ☐ NO

TYPE OF SURFACE WATER:
STREAM
RIVER
POND/LAKE
SEEP

DEPTH OF SAMPLE FROM TOP OF WATER

@ Surface FT

pH

8.5 UNITS

AMBIENT AIR SAMPLE LOCATION

PPM

PPM

EQUIPMENT USED FOR COLLECTION

☒ NONE, GRAB INTO BOTTLE
☐ BOMB SAMPLER
☐ PUMP

SPEC. COND.

374 umhos/cm

DECONTAMINATION FLUIDS USED:
☒ POTABLE WATER
☐ NONE

ANALYTICAL PARAMETERS

TAL METALS (SPECIFIED BELOW)
MIT
SO4
CL
NH3N2
TKN
ALK
HARD
VOC
B/NA
MG
DNT

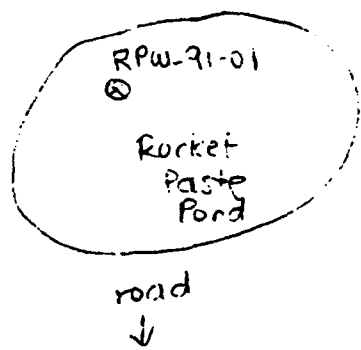
METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
LL8	HN03 TO pH<2	1 L poly	33
TT09	H2SO4 TO pH<2	500 ml	34
TT09	4 DEG C		35
TF30	H2SO4 TO pH<2	1 L poly	36
USEPA 351.1	4 DEG C		37
USEPA 310.1	4 DEG C		38
USEPA 130.2	HN03 TO pH<2	500 ml	39
UM21	4 DEG C	(2) 40 ml	40
UM25	4 DEG C	(2) 1 L AG	41
UM27	4 DEG C	(2) 1 L AG	42
UM25	4 DEG C	(2) 1 L AG	43

SAMPLE BOTTLE ID NUMBERS			LFB
33			DC
34			DC
35			DC
36	177		EA
37	176		EA
38			DC
39	28		EA
40	28		EA
41	177	171	DC
42	176	172	DC

NOTES

(LOCATION SKETCH?)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC UM19, UM26
B/NA UM24
TAL METALS (TOXIC ANALYTE LIST): AL, SB, AS, BA, BE, CD, CA, CR, CO,
CU, FE, PB, MG, MN, HG, NI, K, SE,
AG, NA, TL, V, ZN.
SS12, AX8, CC8, SD25, SD29, SD18
**METHOD NUMBER FOR TL PENDING CERTIFICATION



SIGNATURE: VM/MR

RECEIVED BY: Wm. E. Rofka

MO 8/9/89

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FIELD DATA RECORD - SURFACE WATER

FIELD SAMPLING NUMBER

R7102000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9.20.9

SITE ID

R71-02

JOB NUMBER

6853-04

FILE NAME

CSW

LOCATION

ACTIVITY

START: 1310

END: 1315

PROGRAM

C

WEATHER

Sunny, 60s

SURFACE WATER DATA

WATER DEPTH

1-2"

SAMPLE LOCATION

TEMPERATURE

18.8 DEG C.

SAMPLE LOCATION ☒ YES
SKETCH BELOW? ☐ NO

TYPE OF
SURFACE WATER:
☐ STREAM
☐ RIVER
☒ POND/LAKE
☐ SEEP

DEPTH OF SAMPLE
FROM TOP OF WATER

@ Surface FT

pH

7.9 UNITS

AMBIENT
AIR
SAMPLE
LOCATION

PPH

EQUIPMENT USED
FOR COLLECTION

☒ NONE, GRAB INTO BOTTLE
☐ BOMB SAMPLER
☐ PUMP

SPEC. COND.

366 umhos/cm

DECONTAMINATION
FLUIDS USED:
☐ POTABLE WATER
☒ NONE

ANALYTICAL PARAMETERS

☒ TAL METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ CL
☒ NH3N2
☒ TKN
☒ ALK
☒ HARD
☒ VOC
☒ B/NA
☒ NG
☒ DNT

METHOD
NUMBER

PRESERVATION
METHOD

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

LAP

LL8
TT09
TT09
TF30
USEPA 351.1
USEPA 310.1
USEPA 130.2
UN21
UN25
UN27
UN25

HNO3 TO pH<2
H2SO4 TO pH<2
4 DEG C
4 DEG C
H2SO4 TO pH<2
4 DEG C
H2SO4
HNO3 TO pH<2
4 DEG C
4 DEG C
4 DEG C
4 DEG C

1 L P
500 ml P
1 L P
500 ml P
(2) 40 ml
(2) 1 L AG
(2) 1 L AG
(2) 1 L AG

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NOTES

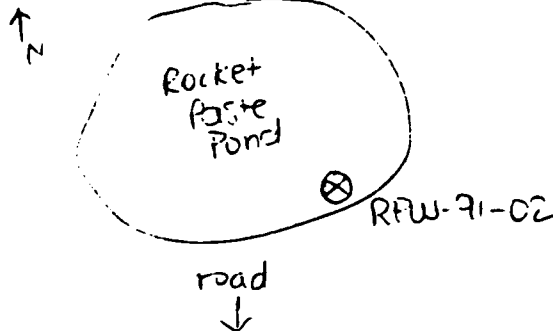
(LOCATION SKETCH?)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC UN19, UN26
B/NA UN24

TAL METALS (TOXIC ANALYTE LIST): AL, SB, AS, BA, BE, CD, CA, CR, CO,
CU, FE, PB, MG, MN, HG, NI, K, SE,
AG, NA, TL, V, ZN.

SS12, AX8, CCB, SD25, SD29, SD18

**METHOD NUMBER FOR TL PENDING CERTIFICATION



SIGNATURE:

NR/1m

RECEIVED BY:

V. Varny E. Pesta

NO 8/9/89

ABB ENVIRONMENTAL SERVICES, INC

PAGE 00 OF 1

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

SAMPLING DATE

SITE ID NFIS-9-101

JOB NUMBER

FILE NAME

LOCATION ACTIVITY

START: 1520 END: 1525

PROGRAM

WEATHER

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input checked="" type="checkbox"/> BNA	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC 2 bottles
EA 1 bottle

SIGNATURE: V. V. V.

RECEIVED BY: L. V. V.

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PAGE 17 OF 20

DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE

ITCH

SAMPLING DATE

9/20/91

ITE ID NPS-91-1C

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 1430 END: 1450

PROGRAM

C

WEATHER

Sunny. 60s

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC trace
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED DISCRETE COMPOSITE

SAMPLE OBSERVATIONS ODOR COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH - UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SW846 METHOD 9045	4 DEG C			
PH	LM23	4 DEG C			
VOC	LM25	4 DEG C			
BN/A	LM27	4 DEG C			
HG	LNO8	4 DEG C			
NAM	LM23	4 DEG C			
DNT					

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC 2 bottles
EA 1 bottle

SIGNATURE:

VM/HR

RECEIVED BY:

James E. Rota

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PAGE 1^a OF 20

DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

N 9 1 0 2 C 0 0

PROJECT: USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

7-20-7

SITE ID: NPS-91-02

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1510 END: 1515

PROGRAM

C

WEATHER

Sunny 76°/83°

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND light brown
☒ ORGANIC
☒ SILT dark brown
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
	KT07	4 DEG C			
	USEPA 350.2	4 DEG C			
	USEPA CE-81-1	4 DEG C			
	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> PH	LN23	4 DEG C			
<input type="checkbox"/> VOC	LN25	4 DEG C			
<input type="checkbox"/> BN/A	LN27	4 DEG C			
<input type="checkbox"/> NG	LN08	4 DEG C			
<input type="checkbox"/> NAM	LN23	4 DEG C			
<input type="checkbox"/> DNT					

NOES
LOCATION SKETCH

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 1 bottle

SIGNATURE: V.M. YR

RECEIVED BY: W. W. E. R. R. R.

ABB ENVIRONMENTAL SERVICES, INC

PAGE 8 OF 25

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

N9103000

PROJECT USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9.22.91

SITE ID N:PS-91-03

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 1130 END: 1135

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☐ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LM08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOTES

(LOCATION SKETCH)

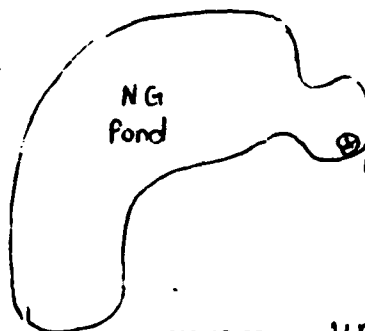
* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 1 bottle

N ↑



NPS-91-03

SIGNATURE: VM/NR

RECEIVED BY: Nancy E. Roka

BB ENVIRONMENTAL SERVICES, INC

PAGE 5 OF 25

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

N9104000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9.22.91

SITE ID

NPS-91-04

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1045 END: 1050

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

NA

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

0 PPM

SAMPLE LOCATION

0 PPM

pH

NA UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☒ CD
☒ CR
☒ HG
☒ PB

METHOD NUMBER

JS12

PRESERVATION METHOD

4 DEG C
4 DEG C
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VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

TCLP METALS (SPECIFIED BELOW)

☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ pH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LN08

LW23

DC

EA

DC

1318

1319

1320

NOTES

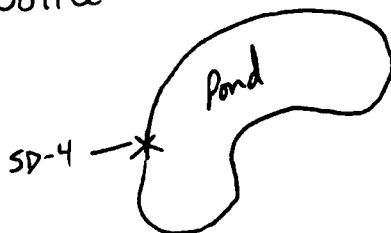
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 1 bottle



SIGNATURE:

VM/MR

RECEIVED BY:

Wendy E. Roper

ABB ENVIRONMENTAL SERVICES, INC

PAGE 6 OF 7

FIELD DATA RECORD - SEDIMENT

PROJECT: USATHAMA-BAAP
 SITE ID: NPS-91-05
 LOCATION ACTIVITY: START: 1100 END: 1105
 FIELD SAMPLING NUMBER: N9105000
 SITE TYPE: POND
 JOB NUMBER: 6853-04
 PROGRAM: C

SAMPLING DATE: 9.22.91
 FILE NAME: CSO
 WEATHER: cloudy, 25 S breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE: 0-5 IN
 TYPE OF SAMPLE COLLECTED: ☒ DISCRETE ☐ COMPOSITE
 TYPE OF SEDIMENT: ☒ CLAY ☐ SAND ☐ ORGANIC ☐ SILT ☐ GRAVEL ☐ OTHER
 EQUIPMENT USED FOR COLLECTION: ☒ GRAVITY CORER ☐ TULIP BULB PLANTER ☐ S.S. HAND SPOON ☐ ALUMINUM PAN ☐ PLASTIC SCOOP ☐ OTHER
 DECONTAMINATION FLUIDS USED: ☐ POTABLE WATER ☐ POTABLE WATER WITH HIGH PRESSURE ☐ OTHER
 SAMPLE OBSERVATIONS: ☐ ODOR ☐ COLORED
 AMBIENT AIR: 0.0 PPM
 SAMPLE LOCATION: C.O PPM
 pH: — UNITS

ANALYTICAL PARAMETERS

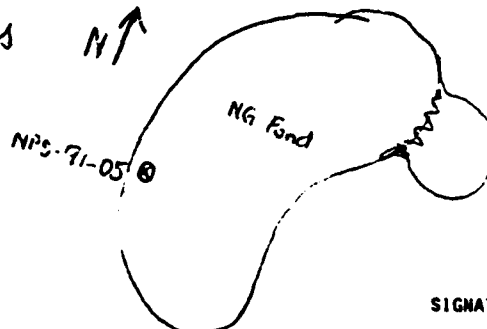
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NH	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NO3

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
 B/NA LM20
 PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
 JS12, B9, JD21, JD20, Y9.
 TCLP METALS: CD, CR, HG, PB.
 JS12, 40 CFR 261.24

DC: 2 bottles
 EA: 1 bottle



SIGNATURE: VM/NR

RECEIVED BY: Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

N9106000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9.22.91

SITE ID

NPS-91-06

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1115 END: 1120

PROGRAM

C

WEATHER

cloudy, '50s
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMP OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCLP METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ HAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LNO8

LW23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC

EA

DC

1336

1337

1338

NOES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

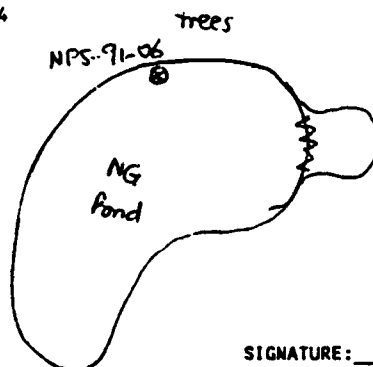
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles
EA: 1 bottle



SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Rofa

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PAGE 3 OF 3

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

N7107000

PROJECT USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9.22.91

SITE ID N75-91-07

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1015

END: 1020

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3 IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER NA

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0 PPM

SAMPLE LOCATION

0 PPM

pH NA UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCLP METALS (SPECIFIED BELOW)
☐ H1T
☐ SO4
☐ NH3N2
☐ TOC
☐ pH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC
EA
DC

SAMPLE BOTTLE ID NUMBERS

1345

1346

1347

NOES
(LOCATION SKETCH)

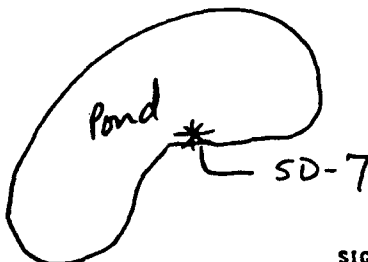
* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 1 7 bottles



SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rora

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PAGE 4 OF 25

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

N9108000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

7.22.91

ITE ID

NPS-91-08

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 1030

END: 1035

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-2

IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE

COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0

PPM

SAMPLE

LOCATION

0

PPM

pH

NA

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☒ CD
☒ CR
☒ HG
☒ PB
☐ TCPL METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA EE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LW23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC

EA

DC

1354

1355

1356

NO8

LOCATION SKETCH

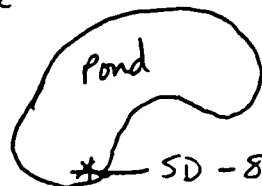
* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 1 bottle



SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

17-07000

PROJECT

USATHAMA-BAAP

SITE TYPE

ETCH

SAMPLING DATE

9/20/91

SITE ID

17-07000

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 01455 END: 1500

PROGRAM

C

WEATHER

Sunny

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)				
<input type="checkbox"/> AL	JS12	4 DEG C		
<input type="checkbox"/> CA		4 DEG C		
<input type="checkbox"/> NA		4 DEG C		
<input checked="" type="checkbox"/> CD		4 DEG C		
<input checked="" type="checkbox"/> CR		4 DEG C		
<input checked="" type="checkbox"/> HG	Y9	4 DEG C		
<input checked="" type="checkbox"/> PB	JD21	4 DEG C		
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C		
<input type="checkbox"/> NIT	KF17	4 DEG C		
<input type="checkbox"/> SO4	KT07	4 DEG C		
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C		
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C		
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C		
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C		
<input checked="" type="checkbox"/> NG	LM27	4 DEG C		
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C		
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHOOS. EA METHOOS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 1 bottle

SIGNATURE: VM/HR

RECEIVED BY: 1/12/92 E. Roka

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

FIELD SAMPLING NUMBER

P9190000

SITE TYPE

BUGR

SAMPLING DATE

9.30.91

SITE ID

PBS-91-90

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1610 END: 1615

PROGRAM

C

WEATHER

cloudy, 60's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT SOME
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				<u>DC</u>	<u>1066</u>
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> H3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	<u>DC</u>	<u>MR</u>	<u>1067</u> <u>1070</u>
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LNO8	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C	<u>DC</u>		<u>1068</u>

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: ~~2~~ 4 bottles (MR)
EA: ~~2~~ bottles

SIGNATURE: VM/ MR
RECEIVED BY: Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

SAMPLING DATE

SITE ID PBS-91-91

JOB NUMBER

FILE NAME

LOCATION ACTIVITY

START: 1620 END: 1625

PROGRAM

WEATHER

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT some
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ H1T
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LN23

LN25

LN27

LN08

LW23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

397
400
403
404
406

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LN17, LN26
B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 24 bottles

EA: 2 bottles

SIGNATURE:

vm/nr

RECEIVED BY:

Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE BUGR

SITE ID PBS-91-92

JOB NUMBER 6853-04

LOCATION ACTIVITY START: 1630 END: 1635

PROGRAM C

SAMPLING DATE 9.30.91

FILE NAME CSO

WEATHER cloudy, 60's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little
☒ ORGANIC some
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				<u>DC</u>	<u>1075</u>
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	<u>DC</u> <u>NR</u>	<u>1076</u>	<u>1079</u>
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C	<u>DC</u>	<u>1077</u>	

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 24 bottles NR
~~EA: 2 bottles~~

SIGNATURE: VM/ NR
RECEIVED BY: Wmancy E. Roka

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE

FIELD SAMPLING NUMBER P9193000

SAMPLING DATE

9.30.91

SITE ID PBS-91-93

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY START: 1640 END: 1645

PROGRAM

C

WEATHER

cloudy, 60's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C		DC	1084
<input checked="" type="checkbox"/> AL	JS12	4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	DC	EA	1085
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			1086
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	1086

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 24 bottles
EA: 2 bottles (MR)

SIGNATURE: VM/MR

RECEIVED BY: Uvancy E. Rofka

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE BUGR

SAMPLING DATE 10.1.91

SITE ID PBS-911-94

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 0840 END: 0845

PROGRAM C

WEATHER cloudy, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND trace
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C		DC	1093
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA DE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	DC		1094 1097
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LM08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C	DC		1095

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA195000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10/1/91

SITE ID PB5-91-95

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0850 END: 0855

PROGRAM

C

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

DC

DC

DC

SAMPLE BOTTLE ID NUMBERS

409

412

415

535

419

416

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/MA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP SITE TYPE BUGR

SITE ID PBS-91-96 JOB NUMBER 6853-04

LOCATION ACTIVITY START: 0900 END: 0905 PROGRAM C

SAMPLING DATE 10.1.91

FILE NAME CSO

WEATHER cloudy, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-3 IN

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

TYPE OF SEDIMENT: ☒ CLAY ☒ SAND ☐ ORGANIC ☐ SILT ☐ GRAVEL ☐ OTHER

EQUIPMENT USED FOR COLLECTION: ☒ GRAVITY CORER ☒ TULIP BULB PLANTER ☒ S.S. HAND SPOON ☒ ALUMINUM PAN ☒ PLASTIC SCOOP ☐ OTHER

DECONTAMINATION FLUIDS USED ☒ POTABLE WATER ☒ POTABLE WATER WITH HIGH PRESSURE ☐ OTHER

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	421
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C		DC	424
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C		DC	427 428
<input type="checkbox"/> BN/A	LN25	4 DEG C			
<input type="checkbox"/> NG	LN27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LN23	4 DEG C		DC	430

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: Vm/MR

RECEIVED BY: Nancy E. Roper

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

29197000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID 2BS-91-97

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 0910 END: 0915

PROGRAM

C

SAMPLING DATE

10.1.91

FILE NAME

CSO

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER dry

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CCRER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	1102
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> CN	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		DC	1103 1106
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C		DC	1104

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rora

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9198000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-98

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0920 END: 0925

PROGRAM

C

SAMPLING DATE

10.1.91

FILE NAME

CSO

WEATHER

cloudy. 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND some
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ H3N2
☒ VOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LNO8

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

DC

DC

SAMPLE BOTTLE ID NUMBERS

1111

1112

1115

1113

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
8/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

29199000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID: PBS-1911-99

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0930 END: 0935

PROGRAM

C

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			433
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			436
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		DC	439 440
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LM08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	442

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P85-91-P00

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0935 END: 0940

PROGRAM

C

SAMPLING DATE

10.1.91

FILE NAME

CSO

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

18-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ H3N2
☒ VOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

1123

1124

1127

1125

NOES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM1, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110100

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID P85-91-101

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1025 END: 1030

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> AL	JS12	4 DEG C		DC	1129			
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CD		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG	Y9	4 DEG C						
<input type="checkbox"/> PB	JD21	4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input type="checkbox"/> NIT	KF17	4 DEG C						
<input type="checkbox"/> SO4	KT07	4 DEG C						
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C						
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	1130	1133		
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C						
<input type="checkbox"/> NG	LM27	4 DEG C						
<input type="checkbox"/> NAM	LN08	4 DEG C						
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	1131			

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

* No TIP available

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rosta

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110200

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-102

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1035 END: 1040

PROGRAM

C

SAMPLING DATE

10.1.91

FILE NAME

CSO

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

- ☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

- ☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

- ☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

- ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

- ☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

- ☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ H3N2
☒ NH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9
JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION METHOD

- 4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

445

448

451

452

454

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110300

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID PBS-91-103

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1040 END: 1045

PROGRAM

C

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

☒ PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
* VOC
* BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

1138

1139

1142

1140

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Rosta

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PAGE 13 OF 23

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID

PBS-91-1104

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 1110

END: 1115

PROGRAM

C

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT *Some*
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE

☒ DISCRETE

COLLECTED

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

☒ PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ NH3N2
☒ VOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ AM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM28

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

1147

1148

1151

1149

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

* TIP brought out to us. Calibrated in the field w/ ambient air and 119 ppm Isobut.

SIGNATURE:

VM/ME

RECEIVED BY:

Nancy E. Rora

ABB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

SITE ID PBS-91-105

JOB NUMBER

LOCATION ACTIVITY START: 1050 END: 1055

PROGRAM

SAMPLING DATE 10.1.91

FILE NAME CSO

WEATHER cloudy, 050's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR PPM

SAMPLE LOCATION PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			457
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG		4 DEG C			
<input type="checkbox"/> PB		4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)	Y9	4 DEG C			
<input type="checkbox"/> NIT	JD21	4 DEG C			
<input type="checkbox"/> SO4		4 DEG C			
<input type="checkbox"/> NH3N2		4 DEG C			
<input type="checkbox"/> TOC		4 DEG C			
<input type="checkbox"/> PH		4 DEG C			
<input checked="" type="checkbox"/> VOC	KF17	4 DEG C			
<input checked="" type="checkbox"/> BN/A	KT07	4 DEG C			
<input type="checkbox"/> NG	USEPA 350.2	4 DEG C			
<input type="checkbox"/> NAM	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> DNT	SW846 METHOD 9045	4 DEG C			
	LM23	4 DEG C			
	LM25	4 DEG C			
	LW27	4 DEG C			
	LNO8	4 DEG C			
	LW23	4 DEG C			

NOES (LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/MR
RECEIVED BY: Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110600

SAMPLING DATE

10.1.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-106

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1100 END: 1105

PROGRAM

C

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	1156			
<input type="checkbox"/> AL	JS12	4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CD		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG	Y9	4 DEG C						
<input type="checkbox"/> PB	JD21	4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input type="checkbox"/> NIT	KF17	4 DEG C						
<input type="checkbox"/> SO4	KT07	4 DEG C						
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input type="checkbox"/> OH	SW846 METHOD 9045	4 DEG C						
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	1157	1160		
<input type="checkbox"/> BN/A	LM25	4 DEG C						
<input type="checkbox"/> NG	LW27	4 DEG C						
<input type="checkbox"/> HAM	LN08	4 DEG C						
<input type="checkbox"/> DNT	LW23	4 DEG C		DC	1158			

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: vm/MR

RECEIVED BY: Nancy E. Rora

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

79110700

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.22.91

SITE ID

PBS-911-107

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1545 END: 1550

PROGRAM

C

WEATHER

cloudy, rainy
50's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			643
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C			644 647
<input type="checkbox"/> BN/A	LN25	4 DEG C			
<input type="checkbox"/> NG	LN27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			645
<input type="checkbox"/> DNT	LN23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LN17, LN26

B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
Tip failed

SIGNATURE:

vm/NR

RECEIVED BY:

Nancy E. Rota

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9111603

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID PBS-91-116

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1130 END: 1140

PROGRAM

C

WEATHER

cloudy, 050's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND med-fine
☒ ORGANIC trace
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER hand auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ COOR
☒ COLORED light brown to tan

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

00 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	469			
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
	Y9 JD21	4 DEG C						
		4 DEG C						
		4 DEG C			472			
		4 DEG C						
		4 DEG C						
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)	KF17 KT07	4 DEG C		EA				
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
	USEPA 350.2 USEPA CE-81-1 SW846 METHOD 9045	4 DEG C						
		4 DEG C						
		4 DEG C			475	476		
		4 DEG C			541			
		4 DEG C						
<input checked="" type="checkbox"/> VOC <input checked="" type="checkbox"/> BN/A <input type="checkbox"/> NG <input type="checkbox"/> NAM <input type="checkbox"/> ONT	LM23 LM25 LM27 LM08 LM23	4 DEG C		DC				
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						
		4 DEG C						

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/NR

RECEIVED BY:

Nancy E. Rota

ABB ENVIRONMENTAL SERVICES, INC

PAGE 15 OF 23

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9111703

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P85-91-117

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1145 END: 1155

PROGRAM

C

SAMPLING DATE

10.1.91

FILE NAME

CSO

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

2.5-3'

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC trace
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☒ OTHER hand auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	481
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C		DC	484
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-B1-1	4 DEG C			
<input type="checkbox"/> VOC	SW846 METHOD 9045	4 DEG C		EA	487 488
<input type="checkbox"/> BN/A	LM23	4 DEG C			494
<input type="checkbox"/> NG	LM25	4 DEG C			
<input type="checkbox"/> NAM	LM27	4 DEG C			
<input type="checkbox"/> DNT	LM28	4 DEG C			
	LM23	4 DEG C		DC	490

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

- Rock at 3' prevented collecting deeper.
we Angled the hand auger to collect dirt
around near top of rock.

SIGNATURE:

um/NR

RECEIVED BY:

Nancy E. Rofa

BB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

9142000

PROJECT USATHAMA-BAAP

SITE TYPE BUGR

SAMPLING DATE 10-1-91

SITE ID PBS-91-42

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1235 END: 1240

PROGRAM C

WEATHER cloudy, 50's breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM PH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C		DC	2776			
<input type="checkbox"/> AL	JS12	4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CD		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG	Y9	4 DEG C						
<input type="checkbox"/> PB	JD21	4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input type="checkbox"/> NIT	KF17	4 DEG C						
<input type="checkbox"/> SO4	KT07	4 DEG C						
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C						
<input type="checkbox"/> VOC	LM23	4 DEG C		EA	2782	2783		
<input type="checkbox"/> BM/A	LM25	4 DEG C						
<input type="checkbox"/> NG	LM27	4 DEG C						
<input type="checkbox"/> NAM	LN08	4 DEG C						
<input type="checkbox"/> DNT	LM23	4 DEG C		DC	2788			

NOES LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/MR
RECEIVED BY: Vancy E. Roka

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PAGE 18 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99143000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID: PBS-91-43

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1240 END: 1245

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT trace
☒ GRAVEL
☒ OTHER coal

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			2791
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			2794
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> CH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	2797 2798
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	2803

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/MK

RECEIVED BY:

Nancy E. Rora

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9144000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID P85-91-44

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1245 END: 1250

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC *some*
SILT *trace*
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED *tan*

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH *—* UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)					
AL	JS12	4 DEG C			2806
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)					
NIT	KF17	4 DEG C			2809
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		EA	2812 2813
BN/A	LM25	4 DEG C			
NG	LW27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LW23	4 DEG C		DC	2816

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

Vm/MR

RECEIVED BY:

Vancy E. Rota

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PAGE 20 OF 3

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA145000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PB5-91-45

JOB NUMBER

6853-06

LOCATION ACTIVITY

START: 1255 END: 1300

PROGRAM

C

SAMPLING DATE

10-1-91

FILE NAME

CSO

WEATHER

cloudy 50's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-2 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			2821
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			2824
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	2827 2828
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LM08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	2833

NOTES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/ME

RECEIVED BY:

Vancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9146000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID

PBS-91-46

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1305 END: 1310

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC *some*
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED *drk brown
tan/rust*

AMBIENT

AIR

0.0 PPM

SAMPLE

LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	2836			
<input type="checkbox"/> AL	JS12	4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CO		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG	Y9	4 DEG C						
<input type="checkbox"/> PB	JD21	4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)								
<input type="checkbox"/> NI	KF17	4 DEG C						
<input type="checkbox"/> SO4	KT07	4 DEG C						
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C						
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	2842	2843		
<input type="checkbox"/> BN/A	LM25	4 DEG C						
<input type="checkbox"/> NG	LW27	4 DEG C						
<input type="checkbox"/> AM	LW27	4 DEG C						
<input type="checkbox"/> DNT	LW23	4 DEG C		DC	2844	2845		

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/ME

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

29147000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 10.1.91

SITE ID PBS-91-47

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1315 END: 1320

PROGRAM C

WEATHER cloudy, 50's breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	2851
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C		EA	2857 2858
<input type="checkbox"/> BN/A	LN25	4 DEG C			
<input type="checkbox"/> NG	LN27	4 DEG C			
<input type="checkbox"/> MAM	LN08	4 DEG C			
<input type="checkbox"/> MNT	LV23	4 DEG C		DC	2863

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LN17, LN26

B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rona

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9148000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-191-48

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1325 END: 1330

PROGRAM

C

SAMPLING DATE

10.1.91

FILE NAME

CSO

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND fine
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH ☒ UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

2866

2867

2872

2875

2878

2873

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

Vrn/ME

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA 149000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PBS-91-49

JOB NUMBER

6853-04

SAMPLING DATE

9.24.91

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1000 END: 1005

PROGRAM

C

WEATHER

rain, 50s

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			221
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			232
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			235
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			236
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C			237

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Fortna

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PAGE 1 OF 25

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9111803

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-1118

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0800 END: 0810

PROGRAM

C

SAMPLING DATE

10-3-91

FILE NAME

CSO

WEATHER

Sunny, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

☒ CLAY little
☒ SAND
☒ ORGANIC
☒ SILT little
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER hand auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☒ COLORED

light brown to brown trace orange

AMBIENT

AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LNO8

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

493

496

499

547

502

500

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

* No TIP available for the day

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

NR/vm

RECEIVED BY:

Nancy E. Roper

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PAGE 13 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R 9 1 0 1 0 0 0

PROJECT USATHAMA-BAAP

SITE TYPE POND

SAMPLING DATE 9-20-91

SITE ID RPS-91-01

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1240 END: 1250

PROGRAM C

WEATHER Sunny, '60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☒ COLORED BLACK

AMBIENT AIR ☐ PPM

SAMPLE LOCATION ☐ PPM

pH NA UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOTES

(LOCATION SKETCH)

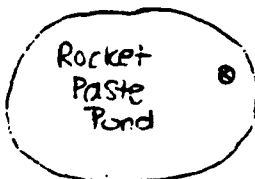
* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26 B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN. JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB. JS12, 40 CFR 261.24

DC: 4 bottles

↑ N



⊙ RPS-91-01

road ↓

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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PAGE ¹⁴ 3 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9102000

PROJECT USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9/2/91

SITE ID: RPS-91-02

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1250 END: 1300

PROGRAM

C

WEATHER

Sunny, 60S

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED black

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

PH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SUB46 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BNA	LM25	4 DEG C			
<input type="checkbox"/> MG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

↑ N
RPS-91-02



road
↓

SIGNATURE:

Vij/ME

RECEIVED BY:

Nancy E. Rofa

PAGE 1 OF

FIELD SAMPLING NUMBER

R	9	1	0	3	0	0	0
---	---	---	---	---	---	---	---

SAMPLING DATE

9-17-91

PROJECT **USATHAMA-BAAP**

SITE TYPE

DTCH

SITE ID R P S - 9 1 - 0 3

JOB NUMBER

6853-04

FILE NAME

CSO

**LOCATION
ACTIVITY**

START: 1030 END: 1040

PROGRAM

C

WEATHER

Sunny ~ 70°

DEPTH OF
SEDIMENT SAMPLE 0-3 IN

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

TYPE OF SEDIMENT:

CLAY	
SAND	
ORGANIC	(Trace)
SILT	
GRAVEL	
OTHER	

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

SAMPLE OBSERVATIONS

ODOR _____
COLORED Med. Brown

**AMBIENT
AIR**

SAMPLE LOCATION

PH	NA	UNITS
----	----	-------

PARAMETER	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE [label] 10 NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CO		4 DEG C			
CR		4 DEG C			
NG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
pH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BN/A	LM25	4 DEG C			
NG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C			

NOE

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26

VOL	LATT
B/NA	LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CO, CR, HG, PB.

JS12, 40 CFR 261.24

DC ^{NO}EA: 3 bottles
EA: 1 bottle

SIGNATURE:

RECEIVED BY:

VM/NR
Nancy E. Rotke

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PAGE 2 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9104000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9-17-91

SITE ID

RPS-91-04

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1100 END: 1115

PROGRAM

C

WEATHER

Sunny ~ 70°

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☒ COMPOSITE

SAMPLE OBSERVATIONS

☒ ODOR

☒ COLORED DK. brown

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

NA

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	Label SAMPLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NI	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
pH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BH/A	LM25	4 DEG C			
NG	LM27	4 DEG C			
MAH	LN08	4 DEG C			
DNT	LM23	4 DEG C			

DC

DC

EA

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC ¹² : 3 bottles
EA ¹² : 1 bottle

SIGNATURE:

VM/NR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9105000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.17.91

SITE ID

RPS-91-05

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1135 END: 1140

PROGRAM

C

WEATHER

Sunny, 60's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-5

IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

COLOR
COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
NI
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LN23

LN25

LN27

LN08

LN23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

label
SAMPLE ID NUMBERS

1453
1453
1453
1453
1454
1454
1455
1456
1457
1458

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LN17, LN26

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/NR

RECEIVED BY:

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PAGE 4 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9106000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SITE ID RPS-91-06

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1150 END: 1200

PROGRAM

C

SAMPLING DATE

9.17.91

FILE NAME

CSO

WEATHER

Sunny, 80's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-4

IN

TYPE OF SEDIMENT:

☒ CLAY *trace*
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label	SAMPLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C				
AL		4 DEG C				
CA		4 DEG C				
NA		4 DEG C				
CD		4 DEG C			1471	
CR		4 DEG C			1471	
MG		4 DEG C			1471	
PB		4 DEG C			1471	
TCLP METALS (SPECIFIED BELOW)	JD21	4 DEG C				
NI		4 DEG C			1472	
SO4		4 DEG C			1472	
NH3N2	USEPA 350.2	4 DEG C				
TOC	USEPA CE-81-1	4 DEG C				
PH	SW846 METHOD 9045	4 DEG C				
VOC	LM23	4 DEG C				
BN/A	LM25	4 DEG C			1473	
MG	LW27	4 DEG C			1474	
AM	LN08	4 DEG C			1475	
DNT	LW23	4 DEG C			1476	

NO3

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/MR

RECEIVED BY:

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PAGE 5 OF 1

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

RA107000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.17.91

SITE ID RPS-91-07

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1215 END: 1220

PROGRAM

C

WEATHER

Sunny, 60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

0-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT trace
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED med. brown

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM25

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Rofa

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PAGE 6 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9108000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.17.91

SITE ID RIPS-91-08

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1230

END: 1240

PROGRAM

C

WEATHER

Sunny, 60's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC some
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☒ COLORED dark brown

AMBIENT

AIR

—

PPM

SAMPLE

LOCATION

—

PPM

pH

—

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ NI
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

label
SAMPLE - ~~DATE~~ ID NUMBERS

DC
EA

1507
1507
1507
1507
1508
1508
1509
1510
1511
1512

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 7 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9109000

SAMPLING DATE

9.17.91

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SITE ID

RPS-911-09

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

PROGRAM

C

WEATHER

Sunny, 60's

ACTIVITY START: 1245 END: 1250

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☒ COLORED red/dk brown

AMBIENT

AIR

PPM

SAMPLE

LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label SAMPLE BOTTLE ID NUMBERS		
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C					
<input type="checkbox"/> AL	JS12	4 DEG C					
<input type="checkbox"/> CA		4 DEG C					
<input type="checkbox"/> NA		4 DEG C					
<input checked="" type="checkbox"/> CD		4 DEG C			<u>1525</u>		
<input checked="" type="checkbox"/> CR		4 DEG C			<u>1525</u>		
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			<u>1525</u>		
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			<u>1525</u>		
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C					
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			<u>1526</u>		
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			<u>1526</u>		
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C					
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C					
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C					
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C					
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			<u>1527</u>		
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			<u>1528</u>		
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			<u>1529</u>		
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			<u>1530</u>		

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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PAGE 8 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9110000

PROJECT: USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE 9.17.91

SITE ID: RPS-91-10

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 1255 END: 1300

PROGRAM

C

WEATHER Sunny, 60's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED dark brown

AMBIENT

AIR

SAMPLE LOCATION

PPM

PH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☒ CD
☒ CR
☒ HG
☒ PB
☐ TCLP METALS (SPECIFIED BELOW)
☒ NI
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE ~~DATE~~ ID NUMBERS

1543

1544

1545

1546

1547

1548

DC

EA

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Roka

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PAGE 9 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9111000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.17.91

SITE ID

RPS-91-111

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1310

END: 1320

PROGRAM

C

WEATHER

Sunny, 60's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED ORG. MATTER
dark brown

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			1561
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> MG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			1562
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NI	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			1563
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			1564
<input checked="" type="checkbox"/> HG	LM27	4 DEG C			1565
<input checked="" type="checkbox"/> NH4	LN08	4 DEG C			1566
<input checked="" type="checkbox"/> DNT	LN23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: NR/Vm

RECEIVED BY: Nancy E. Roka

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PAGE 10 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9112000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SITE ID RPS-91-12

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1325 END: 1335

PROGRAM

C

SAMPLING DATE

9.17.91

FILE NAME

CSO

WEATHER

Sunny, '60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

0-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED light to dark brown

AMBIENT

AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCCLP METALS (SPECIFIED BELOW)
☒ NI
☒ SO4
☒ H3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC
EA

label
SAMPLE BOTTLE ID NUMBERS

1574

1580

1581

1582

1583

1584

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC = 3 bottles
EA = 1 bottle

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9113000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.17.91

SITE ID RPS-91-13

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY START: 1340 END: 1345

PROGRAM

C

WEATHER

Sunny, '60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED dark brown

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label	SAMPLE	BOTTLE	ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C						
<input type="checkbox"/> AL		4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CO		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG	Y9	4 DEG C						
<input type="checkbox"/> PB	JD21	4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input type="checkbox"/> NI	KF17	4 DEG C						
<input type="checkbox"/> SO4	KT07	4 DEG C						
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C						
<input type="checkbox"/> VOC	LM23	4 DEG C						
<input type="checkbox"/> BN/A	LM25	4 DEG C						
<input type="checkbox"/> NG	LM27	4 DEG C						
<input type="checkbox"/> AM	LN08	4 DEG C						
<input type="checkbox"/> DNT	LM23	4 DEG C						

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CO, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.
TCLP METALS: CO, CR, HG, PB.
JS12, 40 CFR 261.24

DC = 3 bottles
EA = 1 bottle

SIGNATURE: NR/vm

RECEIVED BY: Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

FIELD SAMPLING NUMBER

R9114000

SITE ID

RPS-91-14

SITE TYPE

DTCH

SAMPLING DATE

9.17.91

LOCATION ACTIVITY

START: 1350

END: 1355

JOB NUMBER

6853-04

FILE NAME

CSO

PROGRAM

C

WEATHER

cloudy, 60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

0-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED light to dark brown

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label	SAMPLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C				
AL		4 DEG C				
CA		4 DEG C				
NA		4 DEG C				
CD		4 DEG C				
CR		4 DEG C				
HG	Y9	4 DEG C				
PB	JD21	4 DEG C				
TCLP METALS (SPECIFIED BELOW)		4 DEG C				
NIT	KF17	4 DEG C				
NO4	KT07	4 DEG C				
H3N2	USEPA 350.2	4 DEG C				
TOC	USEPA CE-81-1	4 DEG C				
PH	SW846 METHOD 9045	4 DEG C				
VOC	LM23	4 DEG C				
BN/A	LM25	4 DEG C				
NG	LM27	4 DEG C				
NAM	LN08	4 DEG C				
DNT	LM23	4 DEG C				

DC

EA

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9115000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE 9.17.91

SITE ID RPS-91-15

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY START: 1400 END: 1410

PROGRAM

C

WEATHER cloudy, '60's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED dk. brown

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	Label	SAMPLE ID NUMBERS
PP METALS (SPECIFIED BELOW)						
AL	JS12	4 DEG C				
CA		4 DEG C				
NA		4 DEG C				
CD		4 DEG C				
CR		4 DEG C				
HG	Y9	4 DEG C				
PB	JD21	4 DEG C				
TCLP METALS (SPECIFIED BELOW)						
NIT	KF17	4 DEG C				
SO4	KT07	4 DEG C				
NH3N2	USEPA 350.2	4 DEG C				
TOC	USEPA CE-81-1	4 DEG C				
PH	SW846 METHOD 9045	4 DEG C				
VOC	LM23	4 DEG C				
BH/A	LM25	4 DEG C				
NG	LM27	4 DEG C				
RAM	LN08	4 DEG C				
DNT	LM23	4 DEG C				

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC = 3 bottles
EA = 1 bottles

SIGNATURE: vm/NR

RECEIVED BY: Nancy E. Rofia

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PAGE 6 OF 20

DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP
 SITE ID RPS-91-22
 LOCATION ACTIVITY START: 0930 END: 0940

FIELD SAMPLING NUMBER R9122000
 SITE TYPE DTCH
 JOB NUMBER 6853-04
 PROGRAM C

SAMPLING DATE 9.18.91
 FILE NAME CSO
 WEATHER prt. Sunny, 50's; windy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-7 IN

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

TYPE OF SEDIMENT:
☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT trace
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:
☒ GRAVITY CORLA
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED
☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED light brown
 AMBIENT AIR 0.0 PPM
 SAMPLE LOCATION 0.0 PPM
 pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label SAMPLE ID NUMBERS			
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C						
<input type="checkbox"/> AL		4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input checked="" type="checkbox"/> CD		4 DEG C						
<input checked="" type="checkbox"/> CR		4 DEG C						
<input checked="" type="checkbox"/> HG	Y9	4 DEG C						
<input checked="" type="checkbox"/> PB	JD21	4 DEG C						
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input checked="" type="checkbox"/> NI	KF17	4 DEG C						
<input checked="" type="checkbox"/> NI	KT07	4 DEG C						
<input checked="" type="checkbox"/> NI	USEPA 350.2	4 DEG C						
<input checked="" type="checkbox"/> NI	USEPA CE-81-1	4 DEG C						
<input checked="" type="checkbox"/> NI	SW846 METHOD 9045	4 DEG C						
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C						
<input checked="" type="checkbox"/> B/N/A	LN25	4 DEG C						
<input checked="" type="checkbox"/> NG	LN27	4 DEG C						
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C						
<input checked="" type="checkbox"/> DNT	LN23	4 DEG C						

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LN26
 B/NA LN20
 PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
 JS12, 89, JD21, JD20, Y9.
 TCLP METALS: CD, CR, HG, PB.
 JS12, 40 CFR 261.24

DC: 4 bottles
 E.P. 1 bottle (MR)

SIGNATURE: vm/MR
 RECEIVED BY: Nancy E. Roka

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PAGE 7 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9123000

PROJECT

USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.18.91

SITE ID

RPS-91-23

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 0945

END: 0955

PROGRAM

C

WEATHER

prt. sunny, 50's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

—

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ MA
☐ CD
☐ CR
☐ HG
☐ PB
☐ NI
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM28

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

1795

1797

1796

1797

1799

1800

1801

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
EA: 1 bottle (me)

SIGNATURE:

VM/ NR

RECEIVED BY:

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

RA124000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9-18-91

SITE ID RPS-91-24

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1000 END: 1010

PROGRAM

C

WEATHER

prt. sunny, 50's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0.4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND Some
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCLP METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SUB46 METHOD 9045

LM23

LM25

LW27

LN08

LW23

PRESERVATION

METH

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

1816

1818

1819

1819

1820

1821

1822

NOES

LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

EA: 1 bottle NR

SIGNATURE: VM/NR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9125000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SITE ID RPS-91-25

JOB NUMBER

6853-04

LOCATION

ACTIVITY

START: 1240

END: 1250

PROGRAM

C

SAMPLING DATE

9.18.91

FILE NAME

CSO

WEATHER

cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ NI
☐ PB
☐ TC
☐ TIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ HAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM08

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC

1837
1838
1839
1840
1841
1842
1843

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9126000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.18.91

SITE ID RPS-91-26

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1255 END: 1305

PROGRAM

C

WEATHER

cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH

VA

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NH4	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 43 bottles

SIGNATURE:

VM/NR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9127000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.18.91

SITE ID RPS-91-27

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1310 END: 1320

PROGRAM

C

WEATHER

cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOOR
☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

-

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCPL METALS (SPECIFIED BELOW)
☐ NH4
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BNA
☐ NG
☐ NAM
☐ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LN23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

1819

1881

1880

1882

1883

1884

1885

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles

SIGNATURE:

VM/MR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9128000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SITE ID RPS-91-28

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1320 END: 1330

PROGRAM

C

SAMPLING DATE

9.18.91

FILE NAME

CSO

WEATHER

cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-8

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE

☒ DISCRETE

COLLECTED

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☒ COLORED 0-3" dk brown
3-8" orange

AMBIENT

AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☒ CD
☒ CR
☒ HG
☒ PB
☐ TCCLP METALS (SPECIFIED BELOW)
☐ NI
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

1900

1902

1901

1903

1904

1905

1906

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles

SIGNATURE:

vm/ MR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9129000

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE 9.18.91

SITE ID RPS-19-29

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1330 END: 1335

PROGRAM C

WEATHER cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR
☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
HA		4 DEG C			
CO		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
pH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BN/A	LM25	4 DEG C			
HG	LW27	4 DEG C			
NAM	LNO8	4 DEG C			
ONT	LW23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles

SIGNATURE: VM/NR

RECEIVED BY: Nancy E. Roka

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PAGE 3 of 6

FIELD DATA RECORD - SEDIMENT		FIELD SAMPLING NUMBER	19131000	SAMPLING DATE	10-3-97
PROJECT	USATHAMA-BAAP	SITE TYPE	DITCH	FILE NAME	CSO
TE ID	RPS-91-371	JOB NUMBER	6853-04	WEATHER	cloudy 60's
LOCATION	START: 1605 END: 1610	PROGRAM	C		

SEDIMENT DATA		TYPE OF SEDIMENT:	EQUIPMENT USED FOR COLLECTION:	DECONTAMINATION FLUIDS USED
DEPTH OF SEDIMENT SAMPLE	1-6 IN	<input checked="" type="checkbox"/> CLAY <input checked="" type="checkbox"/> SAND <input checked="" type="checkbox"/> ORGANIC <input checked="" type="checkbox"/> SILT <input checked="" type="checkbox"/> GRAVEL <input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> GRAVITY CORER <input checked="" type="checkbox"/> TULIP BULB PLANTER <input checked="" type="checkbox"/> S.S. HAND SPOON <input checked="" type="checkbox"/> ALUMINUM PAN <input checked="" type="checkbox"/> PLASTIC SCOOP <input type="checkbox"/> OTHER	<input checked="" type="checkbox"/> POTABLE WATER <input checked="" type="checkbox"/> POTABLE WATER WITH HIGH PRESSURE <input type="checkbox"/> OTHER
TYPE OF SAMPLE COLLECTED	<input checked="" type="checkbox"/> DISCRETE <input type="checkbox"/> COMPOSITE			
SAMPLE OBSERVATIONS	<input type="checkbox"/> ODOR <input checked="" type="checkbox"/> COLORED <u>orange</u>	AMBIENT AIR	SAMPLE LOCATION	PH

ANALYTICAL PARAMETERS		METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS				
PP METALS (SPECIFIED BELOW)	AL	JS12	4 DEG C		DC ✓					
	CA		4 DEG C							
	NA		4 DEG C							
	CD		4 DEG C							
	CR		4 DEG C							
TCLP METALS (SPECIFIED BELOW)	HG	Y9	4 DEG C							
	PB	JD21	4 DEG C							
	AS		4 DEG C							
	CU	KF17	4 DEG C							
	NI	KT07	4 DEG C							
	MO	USEPA 350.2	4 DEG C							
	NH3N2	USEPA CE-81-1	4 DEG C							
	TOC	SW846 METHOD 9045	4 DEG C							
	PH		4 DEG C							
	VOC	LM23	4 DEG C							
	BN/A	LM25	4 DEG C				2225			
	NG	LW27	4 DEG C							
	NAM	LW08	4 DEG C							
	DNT	LW23	4 DEG C							

NOES LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 1 bottle

* Resampled for missed hold time

SIGNATURE: VM/TK

RECEIVED BY: William E. Kora

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9132000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE 9.18.91

SITE ID RPS-91-32

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 1400

END: 1405

PROGRAM

C

WEATHER prt. cloudy, 90s windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-8

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ MA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ LEAD
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC
EA
DC

1984

1986

1985

1987

1988

1989

1990

NOTES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

97130000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.18.91

SITE ID RPS-41-30

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1350 END: 1355

PROGRAM

C

WEATHER

cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			1942
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			1944
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			1945
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			1945
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			1946
<input checked="" type="checkbox"/> NG	LW27	4 DEG C			1947
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			1948
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C			

DC

NOTES
* LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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PAGE 14 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R91310C10

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SITE ID RPS-91-31

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1345 END: 1340

PROGRAM

C

SAMPLING DATE

9.18.91

FILE NAME

CSO

WEATHER

cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-6 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED 0-3 dark
3-6 orange/tan

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCPL METALS (SPECIFIED BELOW)
☐ NI
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ AM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LN08

LW23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC

EA

DC

1963

1965

1967

1966

1967

1968

1969

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 3 bottles

EA: 1 bottle

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

B ENVIRONMENTAL SERVICES, INC

PAGE 2 OF 6

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9132000

PROJECT USATHAMA-BAAP

SITE TYPE

DITCH

SAMPLING DATE

10.3.91

TE ID RFS-91-32

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
TIVITY

START: 1600

END: 1605

PROGRAM

C

WEATHER

cloudy, 60's
rain

SEDIMENT DATA

DEPTH OF

EDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG		4 DEG C			
PB		4 DEG C			
TCLP METALS (SPECIFIED BELOW)	JD21	4 DEG C			
MT		4 DEG C			
SO4		4 DEG C			
NH3N2	KF17	4 DEG C			
TOC	KT07	4 DEG C			
PH	USEPA 350.2	4 DEG C			
VOC	USEPA CE-81-1	4 DEG C			
BN/A	SW846 METHOD 9045	4 DEG C			
NG	LM23	4 DEG C			
NAM	LM25	4 DEG C			
ONT	LM27	4 DEG C			
	LN08	4 DEG C			
	LV23	4 DEG C			

NOES
LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 1 bottle

* Resampled for missed hold-time

SIGNATURE:

VM/ER

RECEIVED BY:

Wendy E. Rosta

ABB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9133000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.18.91

SITE ID RPS-91-33

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 1410

END: 1415

PROGRAM

C

WEATHER

cloudy, 40's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND some
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NH
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LN23

LN25

LN27

LN08

LN23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

DC

EA

DC

2005

2007

2006

2008

2009

2010

2011

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 3 bottles
EA: 1 bottle

SIGNATURE:

nm/ mr

RECEIVED BY:

Nancy E. Roten

E. C. JORDAN
FIELD DATA RECORD - SURFACE WATER

FIELD SAMPLING NO.

SPW-9101-032

WEATHER

Sunny 115°

PROJECT USATHAMA - SAAP

PROGRAM Q05

SITE TYPE

SURFACE WATER

FILE NAME

CSO

JOB NUMBER

6298-07

SAMPLING DATE

27.5EPa

SITE ID

SPW-9101-03

LOCATION ACTIVITY

START: 1305

END: 1330

SURFACE WATER DATA

WATER DEPTH

15

3 SAMPLE LOCATION

TEMPERATURE

12 DEG. C

TYPE OF
SURFACE WATER

☐ STREAM
☒ POND/LAKE
☐ RIVER
☐ OTHER

DEPTH OF SAMPLE
FROM TOP OF WATER

12

PH.....

9.0. UNITS

DECONTAMINATION
FLUIDS USED

☐ NONE
☒ POTABLE WATER

EQUIPMENT USED ☐ NONE, GRAB INTO BOTTLE
FOR COLLECTION ☐ OTHER

SPEC. COND.

75 UNITS

SAMPLE LOCATION
SKETCH BELOW

☒ YES
☐ NO

AMBIENT AIR VOA

PPM

SAMPLE LOCATION AIR VOA

PPM

TEMPERATURE PROFILE

DEPTH OF MEASUREMENT

1 FT.

TEMPERATURE

18 DEG. C

DEPTH OF MEASUREMENT

7.5 FT.

TEMPERATURE

16 DEG. C

DEPTH OF MEASUREMENT

18 FT.

TEMPERATURE

12 DEG. C

☒ IF REQUIRED AT THIS LOCATION)
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION
METHOD

Bottle size

SAMPLE
COLLECTED

SAMPLE BOTTLE ID'S

☒ CALCIUM
☒ ALUMINUM
☒ IRON
☒ LEAD
☒ MAGNESIUM
☒ SODIUM
☒ HARDNESS
☐ CHLORIDE-DD
☒ ALKALINITY
☒ SULFATE, Chloride
☒ NITRATE & NITRITE

SW

HN03 <2
HN03 <2
HN03 <2
HN03 <2
HN03 <2
HN03 <2
HN03 <2
4 DEG. C DD
4 DEG. C
4 DEG. C
H2SO4

500 ml

500 ml
125 ml
125 ml

☐
☐
☐
☒
☐
☐
☐
☐
☐
☒
☒
☒

NOTES / SKETCH

Was not given method #'s for analyses. Call Joanne Hale at (207) 775-5401 for them. Last digit of field sampling no. (2) designates that sample was taken near bottom.

N
↑



843 10-08-89

SIGNATURE OF SAMPLER

W. D. R. I.

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PAGE 9 OF 25

FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE BUGR

SITE ID BBS-91-01

JOB NUMBER 6833-04

LOCATION ACTIVITY START: 1235 END: 1240

PROGRAM C

SAMPLING DATE 9.22.91

FILE NAME CSO

WEATHER cloudy, 50s
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-6 IN

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

SAMPLE OBSERVATIONS ☐ ODOR dark brown
☐ COLORED dark brown

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			553
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			554
<input type="checkbox"/> BN/A	LM25	4 DEG C			505
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> MAH	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			555

NOES (LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: Vm/MR

RECEIVED BY: Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 14 OF 14

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9116000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.17.91

SITE ID RPS-91-16

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1415 END: 1425

PROGRAM

C

WEATHER

cloudy, 60's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

SAMPLE

LOCATION

PPM

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCPL METALS (SPECIFIED BELOW)
☐ NI
☐ CO
☐ MN
☐ TOC
☐ PH
☐ VOC
☐ BNA
☐ NG
☐ RAM
☐ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

label
SAMPLE ID NUMBERS

1651

1652

1653

1654

1655

1656

NOES
LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC = 3 bottles
EA = 1 bottle

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19
R0817000

PAGE 1 OF 20

9.13.91

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.17.91 (MR)

SITE ID: RPS-91-117

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0825 END: 0835

PROGRAM

C

WEATHER

sunny. 50's
windy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 0-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☒ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED med brown
☒ moist

AMBIENT

AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label	SAMPLE ID NUMBERS
<input type="checkbox"/> PP METALS (SPECIFIED BELOW)						
<input type="checkbox"/> AL	JS12	4 DEG C				
<input type="checkbox"/> CA		4 DEG C				
<input type="checkbox"/> NA		4 DEG C				
<input checked="" type="checkbox"/> CD		4 DEG C			1669	
<input checked="" type="checkbox"/> CR		4 DEG C				
<input checked="" type="checkbox"/> HG	Y9	4 DEG C				
<input checked="" type="checkbox"/> PB	JD21	4 DEG C				
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)						
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			1671	
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			1670	
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			1670	
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C				
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C				
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C				
<input checked="" type="checkbox"/> BN/A	LN25	4 DEG C			1672	
<input checked="" type="checkbox"/> NG	LW27	4 DEG C			1673	
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			1674	
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C			1675	

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
EA: 1 bottle (MR)

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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PAGE 2 OF 20

DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

RJ918000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9.18.91

SITE ID RPS-91-18

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0840 END: 0850

PROGRAM

C

WEATHER

Sunny, '50's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

0-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED dk brown

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☐ CA
☐ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☐ NI
☐ ZN
☐ TOC
☐ PH
☒ VOC
☒ BNA
☒ NG
☒ MAM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

EA

DC

label

SAMPLE ~~BOTTLE~~ ID NUMBERS

1690

1692

1691

1693

1694

1695

1696

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 4 bottles

EA: 1 bottle (NR)

SIGNATURE: vm/nr

RECEIVED BY: Nancy E. Roka

ABB ENVIRONMENTAL SERVICES, INC

PAGE 3 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9119000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SAMPLING DATE

9-18-91

SITE ID RPS-91-19

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0855 END: 0905

PROGRAM

C

WEATHER

Sunny, 50's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE 0-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT mostly
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED
☒ Wt

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label SAMPLE BOTTLE ID NUMBERS
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> RG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> pH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> ONT	LM23	4 DEG C			

NOBS

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZH.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
~~EA: 1 bottle~~ (M2)

SIGNATURE: vm/mr

RECEIVED BY: Nancy E. Roka

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DATA RECORD - SEDIMENT

PROJECT	USATHAMA-BAAP	FIELD SAMPLING NUMBER	R9120000	SAMPLING DATE	9.12.91
SITE ID	RPS-91-20	SITE TYPE	DTCH	FILE NAME	CSO
LOCATION ACTIVITY	START: 0905 END: 0915	JOB NUMBER	6853-04	WEATHER	Sunny, 50's windy
		PROGRAM	C		

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE	0-6 IN	TYPE OF SEDIMENT:	EQUIPMENT USED FOR COLLECTION:	DECONTAMINATION FLUIDS USED
		<input checked="" type="checkbox"/> CLAY	<input checked="" type="checkbox"/> GRAVITY CORER	<input checked="" type="checkbox"/> POTABLE WATER
		<input checked="" type="checkbox"/> SAND	<input checked="" type="checkbox"/> TULIP BULB PLANTER	<input checked="" type="checkbox"/> POTABLE WATER WITH HIGH PRESSURE
		<input checked="" type="checkbox"/> ORGANIC	<input checked="" type="checkbox"/> S.S. HAND SPOON	<input type="checkbox"/> OTHER
		<input checked="" type="checkbox"/> SILT	<input checked="" type="checkbox"/> ALUMINUM PAN	
		<input checked="" type="checkbox"/> GRAVEL	<input checked="" type="checkbox"/> PLASTIC SCOOP	
		<input type="checkbox"/> OTHER	<input type="checkbox"/> OTHER	

TYPE OF SAMPLE COLLECTED: ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS: ☐ ODOR ☐ COLORED

AMBIENT AIR: 0.0 PPM

SAMPLE LOCATION: 0.0 PPM

pH: — UNITS

ANALYTICAL PARAMETERS

METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label	SAMPLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	4 DEG C				
AL	4 DEG C				
CA	4 DEG C				
NA	4 DEG C				
CD	4 DEG C				
CR	4 DEG C				
HG	4 DEG C				
PB	4 DEG C				
TCLP METALS (SPECIFIED BELOW)	4 DEG C				
AS	4 DEG C				
BE	4 DEG C				
CU	4 DEG C				
NI	4 DEG C				
SE	4 DEG C				
TL	4 DEG C				
ZN	4 DEG C				
PH	4 DEG C				
YOC	4 DEG C				
BN/A	4 DEG C				
NG	4 DEG C				
NAH	4 DEG C				
DNT	4 DEG C				

DC: 4 bottles

EA: 1 bottle (MR)

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Roha

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

R9121000

PROJECT USATHAMA-BAAP

SITE TYPE

DTCH

SITE ID RPS-91-21

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0920 END: 0930

PROGRAM

C

SAMPLING DATE

9.18.91

FILE NAME

CSO

WEATHER

prt. sunny, 50's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-8

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED light brown

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label	SAMPLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C				
AL		4 DEG C				
CA		4 DEG C				
NA		4 DEG C				
CD		4 DEG C				
CR		4 DEG C				
MG	Y9	4 DEG C				
PB	JD21	4 DEG C				
TCLP METALS (SPECIFIED BELOW)		4 DEG C				
NI	KF17	4 DEG C				
SO4	KT07	4 DEG C				
NH3N2	USEPA 350.2	4 DEG C				
TOC	USEPA CE-81-1	4 DEG C				
PH	SW846 METHOD 9045	4 DEG C				
VOC	LM23	4 DEG C				
BN/A	LM25	4 DEG C				
MG	LM27	4 DEG C				
NAM	LN08	4 DEG C				
DNT	LM23	4 DEG C				

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
3/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
EA: 1 bottle (NR)

SIGNATURE:

vm/mr

RECEIVED BY:

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9102000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9/22/91

SITE ID

PBS-91-02

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 1250

END: 1255

PROGRAM

C

WEATHER

cloudy, 50s
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND trace

☒ ORGANIC

☒ SILT

☒ GRAVEL

☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☐ POTABLE WATER WITH
HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE

COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☒ COLORED dark brown

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL

☒ CA

☒ NA

☒ CD

☒ CR

☒ HG

☒ PB

TCLP METALS (SPECIFIED BELOW)

☒ NIT

☒ SO4

☒ NH3N2

☒ TOC

☒ PH

☒ VOC

☒ BN/A

☒ NG

☒ MAH

☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

562

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Wm E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9103000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PES-91-03

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1300 END: 1305

PROGRAM

C

SAMPLING DATE

9.22.91

FILE NAME

CSO

WEATHER

cloudy, 50's

too breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-6

IN

TYPE OF SEDIMENT:

☐ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LM28	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			

DC

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

F9104000

SAMPLING DATE

9.22.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

FILE NAME

CSO

SITE ID FBS-91-04

JOB NUMBER

6853-04

WEATHER

cloudy, 50's
breezy

LOCATION ACTIVITY

START: 1310 END: 1315

PROGRAM

C

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND some
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

00 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			571
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG		4 DEG C			
<input type="checkbox"/> PB	Y9	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)	JD21	4 DEG C			
<input type="checkbox"/> NIT		4 DEG C			
<input type="checkbox"/> SO4	KF17	4 DEG C			
<input type="checkbox"/> NH3N2	KT07	4 DEG C			
<input type="checkbox"/> TOC	USEPA 350.2	4 DEG C			
<input type="checkbox"/> PH	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> VOC	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> BN/A	LM23	4 DEG C			572 575
<input type="checkbox"/> NG	LM25	4 DEG C			
<input type="checkbox"/> NAM	LM27	4 DEG C			
<input type="checkbox"/> DNT	LN08	4 DEG C			575
	LW23	4 DEG C			

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/ NR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

F7105C0C

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 7.22.91

SITE ID PBS-91-05

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 1325 END: 1330

PROGRAM

C

WEATHER cloudy, 95os breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER fill/debris
rust/pottery

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
OTHER _____

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER _____

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED _____

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH _____ UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			<u>583</u>
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			<u>584</u> <u>587</u>
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LNO8	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			<u>585</u>

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: Vm/mr

RECEIVED BY: Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9106000

SAMPLING DATE

7.22.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-06

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 1340 END: 1345

PROGRAM

C

FILE NAME

CSO

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER rocky

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.3

PPM

pH

4

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TC
☐ NI
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

13

16

19

22

20

DC

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P8S-91-07

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1350 END: 1355

PROGRAM

C

SAMPLING DATE

9 22 91

FILE NAME

CSO

WEATHER

cloudy, 50's

breazy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND

☒ ORGANIC

☒ SILT

☒ GRAVEL

☒ OTHER rocky

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☒ POTABLE WATER WITH

☒ HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE

COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	label	SAMPLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			589	
<input checked="" type="checkbox"/> AL		4 DEG C				
<input checked="" type="checkbox"/> CA		4 DEG C				
<input checked="" type="checkbox"/> NA		4 DEG C				
<input checked="" type="checkbox"/> CD		4 DEG C				
<input checked="" type="checkbox"/> CR		4 DEG C				
<input checked="" type="checkbox"/> HG	Y9	4 DEG C				
<input checked="" type="checkbox"/> PB	JD21	4 DEG C				
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C				
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C				
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C				
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C				
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C				
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C				
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			590	593
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C				
<input checked="" type="checkbox"/> NG	LM27	4 DEG C				
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C				
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			591	

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: VM/ME

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

97108000

SAMPLING DATE

9.22.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PBS-91-08

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1400 END: 1405

PROGRAM

C

FILE NAME

CSO

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER rocky

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
HG
NAM
DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

598

DC

594

600

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

ym/mr

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99109000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-09

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1415 END: 1420

PROGRAM

C

SAMPLING DATE

9-22-91

FILE NAME

CSO

WEATHER

cloudy, 50s
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND some
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ COOR
☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			607
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3H2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			608 611
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			609

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/NR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

F9110000

SAMPLING DATE

9-22-91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID FBS-91-1C

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1425 END: 1430

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

- ☒ CLAY
- ☒ SAND
- ☒ ORGANIC
- ☒ SILT
- ☒ GRAVEL
- ☒ OTHER rocky debris (naus)

EQUIPMENT USED FOR COLLECTION:

- ☒ GRAVITY CORER
- ☒ TULIP BULB PLANTER
- ☒ S.S. HAND SPOON
- ☒ ALUMINUM PAN
- ☒ PLASTIC SCOOP
- ☐ OTHER

DECONTAMINATION FLUIDS USED

- ☒ POTABLE WATER
- ☐ POTABLE WATER WITH HIGH PRESSURE
- ☐ OTHER

TYPE OF SAMPLE COLLECTED

- ☒ DISCRETE
- ☐ COMPOSITE

SAMPLE OBSERVATIONS

- ☐ ODOR
- ☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

- ☒ AL
- ☒ CA
- ☒ NA
- ☒ CD
- ☒ CR
- ☒ HG
- ☒ PB
- ☒ TCLP METALS (SPECIFIED BELOW)
- ☒ NIT
- ☒ SO4
- ☒ NH3N2
- ☒ TOC
- ☒ PH
- ☒ VOC
- ☒ BN/A
- ☒ NG
- ☒ MAH
- ☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LN23

LN25

LN27

LN08

LN23

PRESERVATION

- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C
- 4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

25

28

31

502

34

32

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LN17, LN26
B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: vm/nr

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PBS-91-111

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 1435 END: 1440

PROGRAM

C

SAMPLING DATE

9.22.91

FILE NAME

CSO

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

☒ PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NI
SO4
NH3N2
TOC
PH
* VOC
* BN/A
NG
NAM
* DNT

METHOD
NUMBER

JS12

PRESERVATION

METHOD
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

616

617

620

618

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

-TIP failed

SIGNATURE:

VM/102

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

09112000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

7.22.91

SITE ID

PBS-91-12

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1440 END: 1445

PROGRAM

C

WEATHER

cloudy, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-6 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND trace
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ COOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☒ TCLP METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☒ VOC
☐ BN/A
☐ NG
☐ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

37

40

43

44

46

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

Tip failed

SIGNATURE:

VMD/NR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19113000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGER

SAMPLING DATE

9-22-91

SITE ID PBS-91-13

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1455 END: 1500

PROGRAM

C

WEATHER

cloudy, 50s breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

PH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			625
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CO		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			626 629
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			627

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CO, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CO, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

Tip failed

SIGNATURE:

VM/MR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P911-000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

ITE ID PBS-91-14

JOB NUMBER

6853-04

LOCATION
CTIVITY

START: 1505 END: 1510

PROGRAM

C

SAMPLING DATE

9.22.91

FILE NAME

CSO

WEATHER

cloudy, 25's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL trace
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TC
☒ CO
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LW23

PRESERVATION

METHOD
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

634

635

638

636

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 4 bottles

TIP failed

SIGNATURE:

VM/mr

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

F9115000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.22.91

SITE ID

FBS-91-15

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1515 END: 1520

PROGRAM

C

WEATHER

cloudy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			49
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			52
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			55
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			56
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> MAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			58

NO8

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
Tip failed

SIGNATURE:

VM/ME

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110800

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.22.91

SITE ID PBS-91-108

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1550 END: 1600

PROGRAM

C

WEATHER

rainy, 50's
brazy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

— PPM

SAMPLE LOCATION

— PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		<input checked="" type="checkbox"/>	<u>652</u>
<input type="checkbox"/> AL		4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> CA		4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> NA		4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> CD		4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> CR		4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> HG	Y9	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> PB	JD21	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> NIT	KF17	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> SO4	KT07	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C		<input type="checkbox"/>	
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		<input checked="" type="checkbox"/>	<u>653</u> <u>656</u>
<input type="checkbox"/> BN/A	LM25	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> NG	LW27	4 DEG C		<input type="checkbox"/>	
<input type="checkbox"/> NAM	LN08	4 DEG C		<input type="checkbox"/>	
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C		<input checked="" type="checkbox"/>	<u>654</u>

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
Tip failed

SIGNATURE:

VM/MR

RECEIVED BY:

Wancy E. Rofa

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PAGE 1 OF 1

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110903

PROJECT: USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.23.91

SITE ID: P91109

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0820 END: 0830

PROGRAM

C

WEATHER

sunny, 90's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER hand auger

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)		4 DEG C			61
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			64
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SWB46 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			67
BN/A	LM25	4 DEG C			68
NG	LW27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LW23	4 DEG C			70

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 4 bottles

- 4TH + final attempt to get through rocks + debris.

SIGNATURE: VM/VR

RECEIVED BY: Nancy E. Rofia

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PAGE 2 OF 15

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA1111003

SAMPLING DATE

9.23.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

FILE NAME

CSO

SITE ID P1BS-91-110

JOB NUMBER

6853-04

WEATHER

Sunny, 40's
breezy

LOCATION
ACTIVITY

START: 0920 END: 0940

PROGRAM

C

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER hand auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH - UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			661
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG		4 DEG C			
<input type="checkbox"/> PB		4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)	Y9	4 DEG C			
<input type="checkbox"/> IT	JD21	4 DEG C			
<input type="checkbox"/> SO4		4 DEG C			
<input type="checkbox"/> NH3N2	KF17	4 DEG C			
<input type="checkbox"/> TOC	KT07	4 DEG C			
<input type="checkbox"/> PH	USEPA 350.2	4 DEG C			
<input type="checkbox"/> VOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> BN/A	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> NG	LM23	4 DEG C			662 665
<input type="checkbox"/> NAM	LM25	4 DEG C			
<input type="checkbox"/> DNT	LW27	4 DEG C			
	LNO8	4 DEG C			
	LW23	4 DEG C			663

NOTE

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

ym/mr

RECEIVED BY:

Nancy E. Roka

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PAGE 3 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P 9 1 1 1 1 0 3

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9-23-91

SITE ID

P 6 5 - 9 1 - 1 1 1

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0940

END: 0950

PROGRAM

C

WEATHER

sunny, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

CLAY
SAND fine
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER hand auger

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLORED dark brown w. trace orange/tan

AMBIENT

AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
HAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LN08

LW23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

673

674

511

675

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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PAGE 4 OF 15

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9111203

PROJECT USATHAMA-BAAP

SITE TYPE

BVGR

SAMPLING DATE 9.23.91

SITE ID PBS-91-112

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 1010 END: 1020

PROGRAM

C

WEATHER

sunny, '50's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER boulders

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER hand auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☒ ODOR
☒ COLORED light brown

AMBIENT

AIR

0.0 PPM

SAMPLE

LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

73

76

80

81

82

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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PAGE 5 OF 5

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9111303

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.23.91

SITE ID

PBS-91-113

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1020

END: 1030

PROGRAM

C

WEATHER

sunny, 50's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

3-35'

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND fine
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER hard auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☒ COLORED light brown

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C		DC	6789			
<input type="checkbox"/> AL	JS12	4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CD		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG	Y9	4 DEG C						
<input type="checkbox"/> PB	JD21	4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input type="checkbox"/> NIT	KF17	4 DEG C						
<input type="checkbox"/> SO4	KT07	4 DEG C						
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C						
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	680	686		
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C						
<input type="checkbox"/> NG	LW27	4 DEG C						
<input type="checkbox"/> NAM	LN08	4 DEG C						
<input checked="" type="checkbox"/> ONT	LW23	4 DEG C		DC	681			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE: VM/ NR

RECEIVED BY: Nancy E. Roka

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PAGE 6 OF 15

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9111403

SAMPLING DATE

9.23.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P183-911-114

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1040 END: 1050

PROGRAM

C

FILE NAME

CSO

WEATHER

Sunny, 50's
windy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER hand auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☒ COLORED dark brown + some tan

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	691
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	692 695
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	693

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Rofa

ABB ENVIRONMENTAL SERVICES, INC

PAGE 7 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9111503

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P18S-91-1115

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1105 END: 1115

PROGRAM

C

SAMPLING DATE

9.23.91

FILE NAME

CSO

WEATHER

Sunny, 50's
windy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER hand auger

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLOR dark brown
+ tan mottled

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
AL	JS12	4 DEG C		DC	85
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		EA	91 92
BN/A	LM25	4 DEG C			
NG	LV27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LV23	4 DEG C		PC	94

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Rofa

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PAGE 8 OF 15

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9116000

SAMPLING DATE

9.23.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-116

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1250 END: 1255

PROGRAM

C

FILE NAME

CSO

WEATHER

Sunny. 50's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	97			
AL		4 DEG C						
CA		4 DEG C						
NA		4 DEG C						
CD		4 DEG C						
CR		4 DEG C						
HG	Y9	4 DEG C						
PB	JD21	4 DEG C						
TCLP METALS (SPECIFIED BELOW)		4 DEG C		DC	100			
NIT	KF17	4 DEG C						
SO4	KT07	4 DEG C						
NH3N2	USEPA 350.2	4 DEG C						
TOC	USEPA CE-81-1	4 DEG C						
PH	SW846 METHOD 9045	4 DEG C						
VOC	LM23	4 DEG C		EA	103	104		
BN/A	LM25	4 DEG C						
NG	LM27	4 DEG C						
MAH	LN08	4 DEG C						
DNT	LM23	4 DEG C		DC	106			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm./NR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19117000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 9-23-91

SITE ID: 185-91-17

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 1300 END: 1305

PROGRAM

C

WEATHER pr+ Sunny. 50s windy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

PH - UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	697
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG		4 DEG C			
PB	Y9	4 DEG C			
TCLP METALS (SPECIFIED BELOW)	JD21	4 DEG C			
NI		4 DEG C			
SO4	KF17	4 DEG C			
NH3N2	KT07	4 DEG C			
TOC	USEPA 350.2	4 DEG C			
PH	USEPA CE-81-1	4 DEG C			
VOC	SW846 METHOD 9045	4 DEG C		EA	698 701
BN/A	LM23	4 DEG C			
HG	LM25	4 DEG C			
NAM	LM27	4 DEG C			
DNT	LN08	4 DEG C		DC	699
	LW23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Kotra

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PAGE 10 OF 15

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9118000

SAMPLING DATE

9.23.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-18

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1310 END: 1315

PROGRAM

C

FILE NAME

CSO

WEATHER

prt. sunny, 50's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

C.O

PPM

SAMPLE

LOCATION

O.O

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			109
<input checked="" type="checkbox"/> AL		4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			112
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			115
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			116
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			118

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/mz

RECEIVED BY:

Nancy E. Rora

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

91
P1819000

SAMPLING DATE

9.23.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P185-91-119

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1320 END: 1325

PROGRAM

C

WEATHER

prt. sunny, 90's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little fine
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	706
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	EA		707 716
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C	DC		708

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE: Vm/MR

RECEIVED BY: Nancy E. Poria

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99120000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P83-91-20

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1325 END: 1330

PROGRAM

C

SAMPLING DATE

9.23.91

FILE NAME

CSO

WEATHER

part. Sunny, 0505
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

CLAY
SAND trace
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LN08

LW23

PRESERVATION

METHOD
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

715

716

514

717

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99121000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID F6S-91-21

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1335 END: 1340

PROGRAM

C

SAMPLING DATE

9.23.9

FILE NAME

CSO

WEATHER

prt sunny, 50s
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND trace
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH
HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE
COLLECTED ☒ DISCRETE
☒ COMPOSITE

SAMPLE OBSERVATIONS

☒ ODOR
☒ COLORED

AMBIENT

AIR

0.0 PPM

SAMPLE

LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			121
<input checked="" type="checkbox"/> AL	JS12	4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CO		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			124
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	127 128
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LW27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C		DC	130

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE: VM/MR

RECEIVED BY: VVancy E. Rofea

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9122000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PB5-911-22

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 1340

END: 1345

PROGRAM

C

SAMPLING DATE

9.23.91

FILE NAME

CSO

WEATHER

pt sunny, 50's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND trace
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0

PPM

SAMPLE
LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NH
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ HG
☒ NAM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

133

136

139

140

142

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

vm/me

RECEIVED BY:

Wendy E. Roka

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PAGE 15 OF 15

FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE

P9123000

SAMPLING DATE

9.23.91

SITE ID P185-91-23

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1345 END: 1350

PROGRAM

C

WEATHER

prt. sunny, 50's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-6

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND *little*
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USE

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE

COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	724
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	725 728
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LNO8	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C		DC	726

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Roka

BB ENVIRONMENTAL SERVICES, INC

PAGE 1 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99124000

PROJECT USATHAMA-BAAP

SITE TYPE BUGR

SAMPLING DATE 9.23.91

SITE ID PBS-91-24

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1640 END: 1645

PROGRAM C

WEATHER sunny, '50's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR
☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	145
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			148
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	151 152
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C		DC	154

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20
PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.
TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rofa

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PAGE 2 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9125700

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.23.91

SITE ID

PBS-91-25

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1650

END: 1655

PROGRAM

C

WEATHER

Sunny, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NH
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

733

734

737

735

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

VM/NR

RECEIVED BY:

Wancy E. Roka

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PAGE 3 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9126000

PROJECT USATHAMA-BAAP

SITE TYPE BUGR

SAMPLING DATE 9.23.91

SITE ID PBS-91-26

JOB NUMBER 6853-04

FILE NAME CSO

LOCATION ACTIVITY START: 1700 END: 1705

PROGRAM C

WEATHER Sunny, 90's
breezy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS ☐ ODOR ☐ COLORED

AMBIENT AIR 0.0 PPM

SAMPLE LOCATION 0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS			
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	742			
<input type="checkbox"/> AL		4 DEG C						
<input type="checkbox"/> CA		4 DEG C						
<input type="checkbox"/> NA		4 DEG C						
<input type="checkbox"/> CD		4 DEG C						
<input type="checkbox"/> CR		4 DEG C						
<input type="checkbox"/> HG	Y9	4 DEG C						
<input type="checkbox"/> PB	JD21	4 DEG C						
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C						
<input type="checkbox"/> NIT	KF17	4 DEG C						
<input type="checkbox"/> SO4	KT07	4 DEG C						
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C						
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C						
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C						
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	743	746		
<input type="checkbox"/> BN/A	LM25	4 DEG C						
<input type="checkbox"/> NG	LM27	4 DEG C						
<input type="checkbox"/> NAM	LN08	4 DEG C						
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C		DC	744			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Pofa

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PAGE 4 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

29127000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.23.91

SITE ID

PBS-91-27

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 1510 END: 1715

PROGRAM

C

WEATHER

Sunny, 95.0's
breezy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-6 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

0.0 PPM

SAMPLE
LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> AL	JS12	4 DEG C			157
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			160
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

Vm/MR

RECEIVED BY:

Nancy E. Rofa

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PAGE 5 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9128000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-28

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1725 END: 1730

PROGRAM

C

SAMPLING DATE

9.23.91

FILE NAME

CSO

WEATHER

Sunny. 70's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0

PPM

SAMPLE LOCATION

0.0

PPM

pH

— UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	751
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
pH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		EA	752 755
BN/A	LM25	4 DEG C			
NG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C		DC	753

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VIM/MR

RECEIVED BY:

Vivian E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99129000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 9.23.91

SITE ID PB5-91-289

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 1735 END: 1740

PROGRAM

C

WEATHER Sunny, 50's

brery

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND

☒ ORGANIC

☒ SILT little

☐ GRAVEL

☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☐ POTABLE WATER WITH HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.0

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			169
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> NIT	KF17	4 DEG C			172
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C	EA		175 176
<input checked="" type="checkbox"/> BN/A	LN25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C	DC		178

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LN17, LN26
B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE: VRR/MR

RECEIVED BY: Nancy E. Rota

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

09130000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID 085-91-30

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0800 END: 0805

PROGRAM

C

SAMPLING DATE

9.24.71

FILE NAME

CSO

WEATHER

rainy, 50s

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	763
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> NG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	764
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			767
<input type="checkbox"/> NG	LM27	4 DEG C			517
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LN23	4 DEG C			765

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

*TIP • TE failed. New one charging.

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Rota

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PAGE 3 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9131000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9/24/91

SITE ID P85-91-31

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0810 END: 0815

PROGRAM

C

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR ☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	769
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	EN		770 772
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C	DC		771

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN. JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Rofa

BB ENVIRONMENTAL SERVICES, INC

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9132000

SAMPLING DATE

9.24.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-32

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0815 END: 0820

PROGRAM

C

FILE NAME

CSO

WEATHER

cloudy. 50s
rainy

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

— PPM

SAMPLE LOCATION

— PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				<input checked="" type="checkbox"/> DC	<u>778</u>
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		<input checked="" type="checkbox"/> DC	<u>779</u> <u>782</u>
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LW23	4 DEG C		<input checked="" type="checkbox"/> DC	<u>780</u>

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 24 bottles
~~EA: 2 bottles~~

SIGNATURE: Vm/VR

RECEIVED BY: Nancy E. Kotka

ABB ENVIRONMENTAL SERVICES, INC

PAGE 10 OF 10

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P91330100

PROJECT

USATHANA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.24.91

SITE ID

P185-91-33

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0825 END: 0830

PROGRAM

C

WEATHER

cloudy, 950's
rain

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input checked="" type="checkbox"/> AL	JS12	4 DEG C			181
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	J021	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			184
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			187 188
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LW27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> ONT	LW23	4 DEG C			190

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, J021, J020, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 4 bottles
EPA 8160-5

SIGNATURE: VM/ME

RECEIVED BY: Wmancy E. Roka

BB ENVIRONMENTAL SERVICES, INC

PAGE 11 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99134000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-34

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0830 END: 0835

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C			193
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			196
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			199 200
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LW23	4 DEG C			202

NOES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
EA: 2 bottles

SIGNATURE:

VM / NR

RECEIVED BY:

Nancy E. Rosta

ABB ENVIRONMENTAL SERVICES, INC

PAGE 12 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19135000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.24.71

SITE ID 185-91-35

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0840

END: 0845

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☒ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☒ COMPOSITE

SAMPLE OBSERVATIONS

☒ ODOR
☒ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		<input checked="" type="checkbox"/>	787
<input checked="" type="checkbox"/> AL		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> CA		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> NA		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> CD		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> CR		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> HG		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> PB		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)	Y.	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> NIT	JD21	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> SO4		4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> NH3N2	KF17	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> TOC	KT07	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> PH	USEPA 350.2	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> VOC	USEPA CE-81-1	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> BN/A	SWB46 METHOD 9045	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> NG	LM23	4 DEG C		<input checked="" type="checkbox"/>	782 791
<input checked="" type="checkbox"/> NAM	LM25	4 DEG C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> DNT	LW27	4 DEG C		<input checked="" type="checkbox"/>	
	LN08	4 DEG C		<input checked="" type="checkbox"/>	
	LW23	4 DEG C		<input checked="" type="checkbox"/>	789

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
EA: 2 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Potter

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PAGE 13 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9136000

SAMPLING DATE

9.24.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PB5-91-36

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0850 END: 0855

PROGRAM

C

WEATHER

rain, 250's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL trace
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			<u>205</u>
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			<u>208</u>
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input type="checkbox"/> VOC	LM23	4 DEG C			<u>211</u> <u>212</u>
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			<u>214</u>

DC

NOTES

LOCATION SKETCH

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles
EA: 2 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Roca

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99137000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.24.71

SITE ID: P185-911-37

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0900 END: 0905

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			796
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			797
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			700
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C			798

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Wendy E. Rofka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19138000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.24.91

SITE ID 185-91-33

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0925 END: 0930

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL Some
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2
USEPA.CE-81-1
SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

805

806

809

807

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Rofa

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PAGE 16 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA139000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-39

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 0940 END: 0945

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			217
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			220
<input type="checkbox"/> NH	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			223 224
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			226

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Rota

BB ENVIRONMENTAL SERVICES, INC

PAGE 17 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9140000

SAMPLING DATE

9.24.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P85-71

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0950 END: 0955

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

814

815

520

816

818

NOES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rota

ABB ENVIRONMENTAL SERVICES, INC

PAGE 16 OF 2

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9141000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

10.1.91

SITE ID P85-91-41

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1225 END: 1230

PROGRAM

C

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-2

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C		DC	2761
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> H1T	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	2767 2768
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> HG	LM27	4 DEG C			
<input type="checkbox"/> NH4	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C		DC	2773

NOES (LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/MR

RECEIVED BY:

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PAGE 14 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PBSI-91-5c

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 1010 END: 1015

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-5 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCLP METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD
NUMBER

JS12

Y9
JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LM08

LM23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

823

824

827

825

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

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PAGE 20 OF 20

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9151000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P85-91-51

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1025 END: 1030

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLOR

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			832
<input checked="" type="checkbox"/> AL		4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CD		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NI	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C			833
<input checked="" type="checkbox"/> BN/A	LN25	4 DEG C			836
<input checked="" type="checkbox"/> NG	LN27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LN23	4 DEG C			834

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LN17, LN26
B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/NR

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9152000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PBS-911-52

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 1315 END: 1320

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 050's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND-trace

☒ ORGANIC

☒ SILT

☒ GRAVEL

☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☐ POTABLE WATER WITH
HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

PPM

SAMPLE

LOCATION

PPM

PH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TCPL METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

241

244

248

247

250

DC

NOTE

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

* TIP/TE not working. New one charging

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Roka

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PAGE 2 OF 22

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

SITE ID P 85-91-53

JOB NUMBER

LOCATION ACTIVITY

START: 1325 END: 1330

PROGRAM

P 9153000

BUGR

6853-04

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-5

IN

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

841

842

845

843

NOES (LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Wynny E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PROJECT USATHAMA-BAAP

SITE TYPE

SAMPLING DATE

SITE ID: PBS-91-54

JOB NUMBER

FILE NAME

LOCATION ACTIVITY

START: 1335 END: 1340

PROGRAM

WEATHER

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

SAMPLE

LOCATION

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			853
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
DH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			854 857
BN/A	LM25	4 DEG C			
NG	LW27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LW23	4 DEG C			855

DC

NOES
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99155000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.24.91

SITE ID

PBS-91-55

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1410 END: 1415

PROGRAM

C

WEATHER

rain, °50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little
☒ ORGANIC trace
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER scupula

DECONTAMINATION FLUIDS USED

☐ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☒ TCLP METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☒ VOC
☒ BN/A
☐ NG
☐ NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

253

254

259

260

262

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9156000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PBS-91-56

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1430 END: 1435

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY *little fine*
☒ SAND *little*
☒ ORGANIC *little*
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER *scupula*

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOOR

☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

☒ PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
☒ VOC
BN/A
NG
NAM
☒ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

SAMPLE BOTTLE ID NUMBERS

859

860

863

861

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Nancy E. Roka

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PAGE 6 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19157000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID 185-91-57

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1440 END: 1445

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain °50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

CLAY
SAND fine
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER Scupula

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED
☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

DC

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

868

869

272

870

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

vm/mc

RECEIVED BY:

Wanda E. Rofa

BB ENVIRONMENTAL SERVICES, INC

PAGE 7 OF 22

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9158000

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PBS-91-58

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 1450 END: 1455

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 050's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND *fine*
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☒ OTHER *Scrapula*

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☒ CA
☒ NA
☒ CD
☒ CR
☒ HG
☒ PB
☒ TC
☒ NI
☒ SO4
☒ NH3N2
☒ TOC
☒ PH
☒ VOC
☒ BN/A
☒ NG
☒ NAM
☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

SAMPLE BOTTLE ID NUMBERS

265

268

271

272

274

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

Vm/ NR

RECEIVED BY:

Nancy E. Rosta

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PAGE 8 OF

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9159000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 9.24.91

SITE ID PB9-91-59

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 1455 END: 1500

PROGRAM

C

WEATHER cloudy, 75's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND fine
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER scupula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			877
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			878 981
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C			879

NOES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

WVancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9160000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P85-91-60

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1520 END: 1525

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

cloudy, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND fine
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER *scrapula*

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	886
AL	JS12	4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)					
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	887 890
BN/A	LM25	4 DEG C			
NG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LV23	4 DEG C		DC	888

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/MR

RECEIVED BY: Nancy E. Rota

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19161000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID 185-91-61

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1530 END: 1535

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3

IN

TYPE OF SEDIMENT:

☒ CLAY little
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☐ OTHER sculpula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

SAMPLE LOCATION

PPH

PH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)					
<input type="checkbox"/> AL	JS12	4 DEG C			277
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			280
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LN23	4 DEG C		EA	283 284
<input type="checkbox"/> BN/A	LN25	4 DEG C			
<input type="checkbox"/> NG	LN27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LN23	4 DEG C		DC	286

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LN17, LN26

B/NA LN20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Wendy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9162000

SAMPLING DATE

9.24.91

PROJECT

USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

P85-91-62

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1545 END: 1550

PROGRAM

C

FILE NAME

CSO

WEATHER

cloudy, 50's rain

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER Scoopula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ COOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL
☐ CA
☐ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCPL METALS (SPECIFIED BELOW)
☐ NIT
☐ SO4
☐ NH3N2
☐ TOC
☐ PH
☒ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION METHOD

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

875

896

899

897

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCPL METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

99163000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P185-91-63

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1600 END: 1605

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE

1-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC little
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER Scupula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☒ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	904
<input checked="" type="checkbox"/> AL		4 DEG C			
<input checked="" type="checkbox"/> CA		4 DEG C			
<input checked="" type="checkbox"/> NA		4 DEG C			
<input checked="" type="checkbox"/> CO		4 DEG C			
<input checked="" type="checkbox"/> CR		4 DEG C			
<input checked="" type="checkbox"/> HG	Y9	4 DEG C			
<input checked="" type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input checked="" type="checkbox"/> NIT	KF17	4 DEG C			
<input checked="" type="checkbox"/> SO4	KT07	4 DEG C			
<input checked="" type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input checked="" type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input checked="" type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	EA		905 908
<input checked="" type="checkbox"/> BN/A	LM25	4 DEG C			
<input checked="" type="checkbox"/> NG	LM27	4 DEG C			
<input checked="" type="checkbox"/> NAM	LM08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C	DC		906

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/mr

RECEIVED BY:

Waincy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P91164000

SAMPLING DATE

9.24.91

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID

PBS-911-64

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 1610 END: 1615

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER scudula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
AL	JS12	4 DEG C		DC	913
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		EA	914
BN/A	LM25	4 DEG C			917
NG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
ONT	LM23	4 DEG C		DC	915

NOBS

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: VM/ME

RECEIVED BY: Nancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA165000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID PA165-91-65

JOB NUMBER

6853-04

LOCATION ACTIVITY

START: 1620 END: 1625

PROGRAM

C

SAMPLING DATE

9.24.91

FILE NAME

CSO

WEATHER

rain, 050's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-4

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND little

☒ ORGANIC

☒ SILT

☒ GRAVEL

☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☒ OTHER scupula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☒ POTABLE WATER WITH HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

PPM

SAMPLE LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL

CA

NA

CO

CR

HG

PB

TCLP METALS (SPECIFIED BELOW)

NI

SO4

NH3N2

TOC

PH

VOC

BN/A

NG

NAM

ONT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

289

292

295

526

298

296

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CO, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CO, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Wancy E. Roka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA166000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.25.91

SITE ID PAS-91-66

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0835 END: 0840

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-5

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little
☒ ORGANIC
☒ SILT
☒ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER scupula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
AL	JS12	4 DEG C			301
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			304
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			307
BH/A	LM25	4 DEG C			308
NG	LW27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LW23	4 DEG C			310

DC

EA

DC

NOBS
(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/ME

RECEIVED BY:

Nancy E. Potka

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

29167000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.25.91

SITE ID FBG-91-67

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0850 END: 0855

PROGRAM

C

WEATHER

rain, 950's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	722
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C		EA	923 926
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LN08	4 DEG C			
<input type="checkbox"/> DNT	LM23	4 DEG C		DC	924

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Nancy E. Roka

BB ENVIRONMENTAL SERVICES, INC

PAGE 17 OF 22

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

19168000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9/25/91

SITE ID 185-91-68

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0905 END: 0910

PROGRAM

C

WEATHER

rain '50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER scupula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
CA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
NIT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LN08

LW23

PRESERVATION

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME REQUIRED

SAMPLE COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

931

932

935

933

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

vm/mr

RECEIVED BY:

Umar E. Roña

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

97167000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.25.91

SITE ID

FBS-91-67

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0915

END: 0920

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-3

IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT little
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER Surber

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH UNITS

ANALYTICAL PARAMETERS

METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C	DC	313
AL	4 DEG C			
CA	4 DEG C			
NA	4 DEG C			
CO	4 DEG C			
CR	4 DEG C			
HG	4 DEG C			
PB	4 DEG C			
TCLP METALS (SPECIFIED BELOW)	Y9	4 DEG C		
NI	4 DEG C			
SO4	4 DEG C			
NH3N2	4 DEG C			
TOC	4 DEG C			
PH	4 DEG C			
VOC	4 DEG C		EA	314 320
BN/A	4 DEG C			
NG	4 DEG C			
NAM	4 DEG C			
DNT	4 DEG C		DC	322

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

VM/MR

RECEIVED BY:

Wendy E. Roña

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P7170000

SAMPLING DATE

92591

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SITE ID P85-91-70

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0925 END: 0930

PROGRAM

C

WEATHER

rain, 50's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3 IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND
☐ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER *scupula*

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0-1.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)				DC	943
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	EA	944	947
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LM08	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C	DC	945	

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/MR

RECEIVED BY:

Nancy E. Ropa

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FIELD DATA RECORD - SEDIMENT

PROJECT USATHAMA-BAAP

SITE TYPE

FIELD SAMPLING NUMBER 99171000

SAMPLING DATE 9.24.91

SITE ID PB5-91-71

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0935 END: 0940

PROGRAM

C

WEATHER

rain, 950's

SEDIMENT DATA

DEPTH OF SEDIMENT SAMPLE 1-4 IN

TYPE OF SEDIMENT:

CLAY
SAND fine
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER scupula

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH HIGH PRESSURE
OTHER

TYPE OF SAMPLE COLLECTED DISCRETE COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)	JS12	4 DEG C		DC	947
AL		4 DEG C			
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)		4 DEG C			
NIT	KF17	4 DEG C			
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C			
PH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C		EA	950 953
BN/A	LM25	4 DEG C			
NG	LM27	4 DEG C			
WAM	LN08	4 DEG C			
DNT	LM23	4 DEG C		DC	951

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE: vm/MR

RECEIVED BY: Nancy E. Roka

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PAGE 22 OF 22

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9172000

PROJECT: USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.25.91

SITE ID: PBS-91-72

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0955 END: 1000

PROGRAM

C

WEATHER

rain, 50's
windy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY

☒ SAND

☒ ORGANIC

☒ SILT Some

☒ GRAVEL

☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER

☒ TULIP BULB PLANTER

☒ S.S. HAND SPOON

☒ ALUMINUM PAN

☒ PLASTIC SCOOP

☒ OTHER Scupula

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☐ POTABLE WATER WITH
HIGH PRESSURE

☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE

☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.3

PPM

pH

—

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☒ AL

☒ CA

☒ NA

☒ CD

☒ CR

☒ HG

☒ PB

TCLP METALS (SPECIFIED BELOW)

☒ NIT

☒ SO4

☒ NH3N2

☒ TOC

☒ OH

☒ VOC

☒ BN/A

☒ NG

☒ NAM

☒ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LN08

LW23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

EA

DC

SAMPLE BOTTLE ID NUMBERS

325

328

331

332

334

NOTES

LOCATION SKETCH)

* THESE ARE DATACHEN METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.

JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.

JS12, 40 CFR 261.24

DC: 2 bottles

EA: 2 bottles

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Rofa

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FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

PA173000

PROJECT USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE

9.24.91

SITE ID PBS-91-73

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 0945 END: 0950

PROGRAM

C

WEATHER

rain, 50's
windy

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

1-4

IN

TYPE OF SEDIMENT:

☒ CLAY
☒ SAND little fine
☒ ORGANIC
☒ SILT
☒ GRAVEL
☒ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☒ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☒ PLASTIC SCOOP
☒ OTHER *scrapula*

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

0.0

PPM

SAMPLE

LOCATION

0.5

PPM

PH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)		4 DEG C		DC	958
<input type="checkbox"/> AL	JS12	4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			
<input type="checkbox"/> NIT	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C	EA		959 962
<input type="checkbox"/> BN/A	LM25	4 DEG C			
<input type="checkbox"/> NG	LM27	4 DEG C			
<input type="checkbox"/> NAM	LNO8	4 DEG C			
<input checked="" type="checkbox"/> DNT	LM23	4 DEG C	DC		960

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26

B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 2 bottles

SIGNATURE:

vm/ MR

RECEIVED BY:

Nancy E. Rota

C. JORDAN
FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NO.

NIPS-89-012-11

WEATHER

Sunny / 75°

ROGRAM Q05

SITE TYPE

SEDIMENT

FILE NAME

CSO

PROJECT USATHAMA - BAAP

JOB NUMBER

6298-12

SAMPLING DATE

27 SEP 90

SITE ID NIPS-89-012

LOCATION ACTIVITY

START: 1210

END: 1215

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE .1 to .5 ft

TYPE OF SEDIMENT

☐ CLAY
☒ SAND Mostly
☐ SILT
☒ ORGANIC
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION

☒ CORING DEVICE
☐ S.S. SPLIT SPOON
☒ S.S. HAND SPOON
☒ ALUMINUM PANS
☐ S.S. BUCKET
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER W/HIGH PRESS.

SAMPLE OBSERVATIONS

TYPE OF SAMPLE

☒ DISCRETE
☐ COMPOSITE / NO.

AMBIENT AIR VOA

PPM

SAMPLE LOCATION AIR VOA

PPM

☒ IF REQUIRED AT THIS LOCATION)
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION
METHOD

Bottle Size
SAMPLE
COLLECTED

SAMPLE BOTTLE ID'S

ANALYTICAL PARAMETER/METHOD	MATRIX	PRESERVATION METHOD	Bottle Size	SAMPLE COLLECTED	SAMPLE BOTTLE ID'S
<input type="checkbox"/> NI / JS05	SD	4 DEG. C	120ml (4oz)	<input type="checkbox"/>	
<input type="checkbox"/> FE / JS05		4 DEG. C		<input type="checkbox"/>	
<input checked="" type="checkbox"/> CD / JS05		4 DEG. C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> CR / JS05		4 DEG. C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> HG / JB09		4 DEG. C		<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> PB / JS05		4 DEG. C	<input checked="" type="checkbox"/>		
<input type="checkbox"/> CA / JS05		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> NA / JS05		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> AL / JS05		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> NIT / KT03		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> SO4 / KT03		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> VOC / LM12		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> BN/A / LM11		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> NAM / LN02		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> PHTL / LM11		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> DNT / LW07		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> NG / LW10		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> NH4 / USEPA 350.2		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> TOC / USEPA CE-81-1		4 DEG. C	<input type="checkbox"/>		
<input type="checkbox"/> PH / USEPA (SOP GH001)	SD	4 DEG. C			

NOTES / SKETCH

Sample taken at staked location. Cd, Cr, Hg, Pb samples are all in 1 jar.

R. David Cincera

E. C. JORDAN
FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NO.

NIPIS-89-031

WEATHER

Sunny

PROGRAM Q05

SITE TYPE

SEDIMENT

FILE NAME

CSO

PROJECT

USATHAMA - BAAP

JOB NUMBER

6298-12

SAMPLING DATE

27 SEP 90

SITE ID

NIPIS-89-031

LOCATION ACTIVITY

START: 1220

END: 1230

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

.1 - .5 FE

SAMPLE OBSERVATIONS

TYPE OF SEDIMENT

☐ CLAY

☒ SAND

☐ SILT

☐ ORGANIC

☐ GRAVEL

☐ OTHER

EQUIPMENT USED FOR COLLECTION

☒ CORING DEVICE

☐ S.S. SPLIT SPOON

☒ S.S. HAND SPOON

☒ ALUMINUM PANS

☐ S.S. BUCKET

☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☐ POTABLE WATER W/HIGH PRESS.

TYPE OF SAMPLE

☒ DISCRETE

☐ COMPOSITE / NO.

AMBIENT AIR VOA

PPH

SAMPLE LOCATION AIR VOA

PPH

☒ IF REQUIRED AT THIS LOCATION)
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION
METHOD

SAMPLE
BOTTLE COLLECTED

SAMPLE BOTTLE ID'S

☐ NI / JS05
☐ FE / JS05
☒ CD / JS05
☒ CR / JS05
☒ HG / JS05
☒ PB / JS05
☐ CA / JS05
☐ NA / JS05
☐ AL / JS05
☐ NIT / KT03
☐ SO4 / KT03
☐ VOC / LM12
☐ BN/A / LM11
☐ NAM / LM02
☐ PHTL / LM11
☐ DNT / LM07
☐ NG / LM10
☐ NH4 / USEPA 350.2
☐ TOC / USEPA CE-81-1
☐ PH / USEPA (SOP GH001)

SD

4 DEG. C
4 DEG. C
4 DEG. C
4 DEG. C } 120 ml
4 DEG. C } (4oz)
4 DEG. C
4 DEG. C
4 DEG. C
4 DEG. C
4 DEG. C
4 DEG. C
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NOTES / SKETCH

Sample taken at staked location. Water level in pond is low.
Cd, Cr, Pb, Hg samples all in 1 jar.



▲ NPS-90-03

Summ. 75°

FIELD DATA RECCRO - SEDIMENT

PROGRAM QOS

SITE TYPE

SEDIMENT

FILE NAME

CSO

PROJECT	USATHAMA - BAAP
---------	-----------------

JOB NUMBER

6298-12

SAMPLING DATE

27 SEP 9c

SITE ID NPIS-89-06

LOCATION ACTIVITY

START: 1235

END: 1245

SEDIMENT DATA

DEPTH OF
SEDIMENT

1 - .5 ft

TYPE OF SEDIMENT

☐ CLAY
☒ SAND
☐ SILT
☐ ORGANIC
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION

☒ CORING DEVICE
☐ S.S. SPLIT SPOON
☒ S.S. HAND SPOON
☒ ALUMINUM PANS
☐ S.S. BUCKET
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER W/HIGH PRESS.

TYPE OF SAMPLE

☒ DISCRETE
☐ COMPOSITE / NO.

SAMPLE OBSERVATIONS Sm cont. clay

AMBIENT AIR VOA

524

SAMPLE LOCATION AIR VOA

2004

(☒ IF REQUIRED AT THIS LOCATION)
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION METHOD

IN Bottle SAMPLE

SAMPLE BOTTLE ID'S

```

[ ] NI / JS05
[ ] FE / JS05
D-1 CO / JS05
D-1 CR / JS05
D-1 NG / JB09
D-1 PB / JS05
[ ] CA / JS05
[ ] NA / JS05
[ ] AL / JS05
[ ] NIT / KT03
[ ] SO4 / KT03
[ ] VOC / LM12
[ ] BN/A / LM11
[ ] NAM / LM02
[ ] PNTNL / LM11
[ ] DNT / LM07
[ ] NG / LM10
[ ] NH4 / USEPA 330.2
[ ] TOC / USEPA CE-81-1
[ ] BN / USEPA (SOP GH001)

```

30

[illegible][illegible]

5

NOTES / SKETCH

Cd, Cr, Pb, Hg samples all taken ~~at~~ in (1) 4oz. jar. No stake at location.

Nitro
Pend

▲ NP5-89-06

R. D. Dinsmore

E. C. JORDAN
FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NO.

NPIS-89-C9

WEATHER

Sunny 75

PROGRAM QOS

SITE TYPE

SEDIMENT

FILE NAME

CSO

PROJECT USATHANA - BAAP

JOB NUMBER

6298-12

SAMPLING DATE

27 SEP 90

SITE ID

NPIS-89-C9

LOCATION ACTIVITY

START: 1300 END: 1400

SEDIMENT DATA

DEPTH OF
SEDIMENT SAMPLE

.1 to .5 ft

TYPE OF SEDIMENT

- ☐ CLAY
☐ SAND
☐ SILT
☒ ORGANIC
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION

- ☒ CORING DEVICE
☐ S.S. SPLIT SPOON
☒ S.S. HAND SPOON
☐ ALUMINUM PANS
☐ S.S. BUCKET
☐ OTHER

DECONTAMINATION FLUIDS USED

- ☒ POTABLE WATER
☐ POTABLE WATER W/HIGH PRESS.

SAMPLE OBSERVATIONS

TYPE OF SAMPLE

- ☒ DISCRETE
☐ COMPOSITE / NO.

AMBIENT AIR VOA

PPM

SAMPLE LOCATION AIR VOA

PPM

☐ IF REQUIRED AT THIS LOCATION)
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION
METHOD

SAMPLE
COLLECTED

AMPLE BOTTLE ID'S

<input type="checkbox"/> NI / JS05	SD	4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> FE / JS05		4 DEG. C	<input type="checkbox"/>	
<input checked="" type="checkbox"/> CD / JS05		4 DEG. C	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> CR / JS05		4 DEG. C	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> HG / JS05		4 DEG. C	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> PB / JS05		4 DEG. C	<input checked="" type="checkbox"/>	
<input type="checkbox"/> CA / JS05		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> NA / JS05		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> AL / JS05		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> NIT / KT03		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> SO4 / KT03		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> VOC / LM12		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> BN/A / LM11		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> NAM / LM02		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> PNTHL / LM11		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> DNT / LM07		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> NG / LM10		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> NH4 / USEPA 350.2	SD	4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> TOC / USEPA CE-81-1		4 DEG. C	<input type="checkbox"/>	
<input type="checkbox"/> pH / USEPA (SOP GN001)		4 DEG. C	<input type="checkbox"/>	

Bottle collected size

120ml (4oz)

18

NOTES / SKETCH

Sample taken at staked location in middle of ditch.
Cd, Cr, Hg, Pb Sample all in (1) 4oz. jar.

R. Craig Dismore

E. C. JORDAN
FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NO.

NPS-89-110

WEATHER

Sunny

PROGRAM QOS

SITE TYPE

SEDIMENT

FILE NAME

CSO

PROJECT

USATHAMA - BAAP

JOB NUMBER

6298-12

SAMPLING DATE

27 SEP 90

SITE ID

NPS-89-110

LOCATION ACTIVITY

START:

1405

END:

1415

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

1 to .5 ft

TYPE OF SEDIMENT

☐ CLAY

☐ SAND

☐ SILT

☒ ORGANIC

☐ GRAVEL

☐ OTHER

EQUIPMENT USED FOR COLLECTION

☒ CORING DEVICE

☐ S.S. SPLIT SPOON

☒ S.S. HAND SPOON

☒ ALUMINUM PANS

☐ S.S. BUCKET

☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER

☐ POTABLE WATER W/HIGH PRESS.

SAMPLE OBSERVATIONS

TYPE OF SAMPLE

☒ DISCRETE

☐ COMPOSITE / NO.

AMBIENT AIR VOA

PPM

SAMPLE LOCATION AIR VOA

PPM

☒ IF REQUIRED AT THIS LOCATION
ANALYTICAL PARAMETER/METHOD

MATRIX

PRESERVATION
METHOD

Bottle
Size

SAMPLE
COLLECTED

SAMPLE BOTTLE ID'S

☐ NI / JS05

☐ FE / JS05

☒ CD / JS05

☒ CR / JS05

☒ HG / JS05

☒ PB / JS05

☐ CA / JS05

☐ NA / JS05

☐ AL / JS05

☐ NIT / KT03

☐ SO4 / KT03

☐ VOC / LM12

☐ BN/A / LM11

☐ NAM / LM02

☐ PHTL / LM11

☐ DNT / LM07

☐ NG / LM10

☐ NH4 / USEPA 350.2

☐ TOC / USEPA CE-81-1

☐ PH / USEPA (SOP GH001)

SD

SD

4 DEG. C

4 DEG. C

4 DEG. C

4 DEG. C

4 DEG. C

4 DEG. C

4 DEG. C

4 DEG. C

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10

20

21

NOTES / SKETCH

Cd, Cr, Hg + Pb are in 3 separate 40 ml vials. Ran out of 4oz. glass jars. Samples Took samples at stacked location.

ABB ENVIRONMENTAL SERVICES, INC.

PAGE 1 OF 25

FIELD DATA RECORD - SURFACE WATER

FIELD SAMPLING NUMBER

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

9.22.91

SITE ID

NPW-91-01

JOB NUMBER

6853-04

FILE NAME

CSW

LOCATION

START: 0905 END: 0910

PROGRAM

C

WEATHER

cloudy, 50s
windy

SURFACE WATER DATA

WATER DEPTH

1.2'

SAMPLE LOCATION

TEMPERATURE

13.0 DEG C.

SAMPLE LOCATION ☒ YES
SKETCH BELOW? ☐ NO

TYPE OF SURFACE WATER:
☐ STREAM
☐ RIVER
☒ POND/LAKE
☐ SEEP

DEPTH OF SAMPLE FROM TOP OF WATER

Surface

pH

9.2 UNITS

AMBIENT AIR
SAMPLE LOCATION

PPM
PPM

EQUIPMENT USED FOR COLLECTION

☒ NONE, GRAB INTO BOTTLE
☐ BOMB SAMPLER
☐ PUMP

SPEC. COND.

145 umhos/cm

DECONTAMINATION FLUIDS USED:
☒ POTABLE WATER
☐ NONE

ANALYTICAL PARAMETERS

TOTAL METALS (SPECIFIED BELOW)

☒ TAL METALS (SPECIFIED BELOW)
☒ NIT
☒ SO4
☒ CL
☒ NH3N2
☒ TKN
☒ ALK
☒ HARD
☒ VOC
☒ B/NA
☒ NG
☒ DNT

METHOD NUMBER

PRESERVATION METHOD

VOLUME REQUIRED

SAMPLE COLLECTED

SAMPLE BOTTLE ID NUMBERS

LAB

LL8 HNO3 TO pH<2
TT09 H2SO4 TO pH<2
TT09 4 DEG C
TF30 4 DEG C
USEPA 351.1 H2SO4 TO pH<2
USEPA 310.1 ~~4 DEG C~~ H2SO4
USEPA 130.2 HNO3 TO pH<2
UM21 4 DEG C
UM25 4 DEG C
UM27 4 DEG C
UM25 4 DEG C

1 L Poly
500 ml poly
1 L Poly
1 L Poly
500 ml P
(2) 40 ml
(2) 1 L AG
(2) 1 L AG
(2) 1 L AG

17 / / / DC
18 / / / DC
20 / / / DC
19 / / / DC
161 / / / EA
162 / / / EA
21 / / / DC
22 / / / DC
23 / / / DC
24 / 71 / / EA
147 / 72 / / EA
147 / 163 / / DC
142 / 164 / / DC

NOTES

(LOCATION SKETCH?)

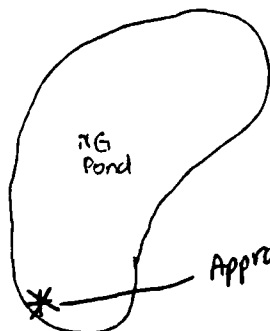
* THESE ARE DATACHEM METHODS. EA METHODS: VOC UM19, UM26
B/NA UM24

TAL METALS (TOXIC ANALYTE LIST): AL, SB, AS, BA, BE, CD, CA, CR, CO,
CU, FE, PB, HG, MN, HG, NI, K, SE,
AG, NA, TL, V, ZN.

SS12, AX8, CC8, SD25, SD29, SD18

**METHOD NUMBER FOR TL PENDING CERTIFICATION

N



Approx. Location of SW-01

DC: 8 bottles
EA: 5 bottles

SIGNATURE:

VM/NR

RECEIVED BY:

Nancy E. Roka

MD 8/9/89

PAGE 2 OF 25

N	9	1	0	2	0	0	0
---	---	---	---	---	---	---	---

SAMPLING DATE	9.22.91
---------------	---------

FILE NAME	CSW
-----------	-----

WEATHER	cloudy, °50's
---------	---------------

TYPE OF SURFACE WATER:

<input type="checkbox"/>	STREAM
<input type="checkbox"/>	RIVER
<input checked="" type="checkbox"/>	POND/LAKE
<input type="checkbox"/>	SEEP

AMBIENT AIR	0	PPM
SAMPLE LOCATION	0	PPM

SPEC. COND. 149 umhos/cm

DECONTAMINATION
FLUIDS USED:
☒ POTABLE WATER
☐ NONE

METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS	LAB	
	HNO3 TO pH<2	1 L Poly		25		DC
	H2SO4 TO pH<2	500 ml Poly		26		DC
LL8	4 DEG C			28		DC
TT09	4 DEG C			27		DC
TF09	H2SO4 TO pH<2	1 L Poly		144		EA
EPA 351.1	H2SO4			150		EA
EPA 310.1	4 DEG C			29		DC
EPA 130.2	HNO3 TO pH<2	500 ml P		30		DC
UM21	4 DEG C	(2) 40 ml		31	79	EA
UM25	4 DEG C	(2) 1 L AG		32	80	EA
UM27	4 DEG C	(2) 1 L AG		151	152	DC
UM25	4 DEG C	(2) 1 L AG		167	168	DC

(LOCATION SKETCH?)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC UM19, UM26
B/NA UM24

TAL METALS (TOXIC ANALYTE LIST): AL, SB, AS, BA, BE, CD, CA, CR, CO,
CU, FE, PB, MG, MN, HG, NI, K, SE,
AG, NA, TL, V, ZN.

SS12, AX8, CC8, SD25, SD29, SD18

****METHOD NUMBER FOR TL PENDING CERTIFICATION**

DC: 8 bottles
EA: 5 bottles

A hand-drawn map of an irregularly shaped pond labeled "NG Pond". Two sampling points are marked with asterisks (*). "SW-1" is located at the bottom-left point, and "SW-2" is located at the top-right point. Below the pond, the text "SIGNATURE: vm/vr" is written.

SIGNATURE: VVY/VK

RECEIVED BY:

Nancy E. Roberts

ABB ENVIRONMENTAL SERVICES, INC

PAGE 2 OF 2

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

09101000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

10.3.91

SITE ID

OPS-91-01

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION

ACTIVITY

START: 0845 END: 0850

PROGRAM

C

WEATHER

Sunny, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6 IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☒ ORGANIC
☐ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☒ GRAVITY CORER
☐ TULIP BULB PLANTER
☐ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

☐ AL
☒ CA
☒ NA
☐ CD
☐ CR
☐ HG
☐ PB
☐ TCLP METALS (SPECIFIED BELOW)
☒ NH4
☒ SO4
☒ NH3N2
☐ TOC
☐ PH
☐ VOC
☐ BN/A
☐ NG
☐ NAM
☐ DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LM27

LN08

LM23

PRESERVATION

METHOD

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

4 DEG C

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4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

DC

EA

SAMPLE BOTTLE ID NUMBERS

1255

1256

1257

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 1 bottle

N

OPS-91-01 (staked)



RR

SIGNATURE: VM/MZ

RECEIVED BY: Wancy E. Kora

BB ENVIRONMENTAL SERVICES, INC

PAGE 3 OF 25

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

09102000

SAMPLING DATE

10-3-91

PROJECT USATHAMA-BAAP

SITE TYPE

POND

ITE ID OPS-91-02

JOB NUMBER

6853-04

LOCATION
ACTIVITY

START: 0855 END: 0900

PROGRAM

C

FILE NAME

CSO

WEATHER

Sunny, 50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3

IN

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☒ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☒ ALUMINUM PAN
☐ PLASTIC SCOOP
☐ OTHER

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH
HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE
COLLECTED

☒ DISCRETE
☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR

☐ COLORED

AMBIENT

AIR

SAMPLE

LOCATION

PPM

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)					
AL	JS12	4 DEG C			
AS		4 DEG C			
BA		4 DEG C			
BE		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
CU		4 DEG C			
FE		4 DEG C			
HA		4 DEG C			
HN		4 DEG C			
HM		4 DEG C			
HC		4 DEG C			
NI		4 DEG C			
NO		4 DEG C			
NA		4 DEG C			
PC		4 DEG C			
PB		4 DEG C			
PP		4 DEG C			
TC		4 DEG C			
TD		4 DEG C			
TE		4 DEG C			
TH		4 DEG C			
TI		4 DEG C			
TO		4 DEG C			
TP		4 DEG C			
TR		4 DEG C			
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TH					

ABB ENVIRONMENTAL SERVICES, INC

PAGE 4 OF 25

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

09103000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

10 3 91

SITE ID

OPS-91-03

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION ACTIVITY

START: 07:50 END: 09:20

PROGRAM

C

WEATHER

Sunny, '50's
breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-3

IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR
COLORED

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
PP METALS (SPECIFIED BELOW)					
AL	JS12	4 DEG C		DC	1273
CA		4 DEG C			
NA		4 DEG C			
CD		4 DEG C			
CR		4 DEG C			
HG	Y9	4 DEG C			
PB	JD21	4 DEG C			
TCLP METALS (SPECIFIED BELOW)					
NIT	KF17	4 DEG C		DC	1274
SO4	KT07	4 DEG C			
NH3N2	USEPA 350.2	4 DEG C			
TOC	USEPA CE-81-1	4 DEG C		EA	1275
pH	SW846 METHOD 9045	4 DEG C			
VOC	LM23	4 DEG C			
BN/A	LM25	4 DEG C			
NG	LM27	4 DEG C			
NAM	LN08	4 DEG C			
DNT	LM23	4 DEG C			

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 1 bottle

TN



✓RR

OPS-91-03

SIGNATURE: VM/MR

RECEIVED BY: Nancy E Rota

BB ENVIRONMENTAL SERVICES, INC

PAGE 5 OF 25

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

09104000

PROJECT

USATHAMA-BAAP

SITE TYPE

POND

SAMPLING DATE

10.3.91

SITE ID

0PS-91-04

JOB NUMBER

6853-04

FILE NAME

CSO

LOCATION
ACTIVITY

START: 0925 END: 0930

PROGRAM

C

WEATHER

sunny, 50's

breezy

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

0-6

IN

TYPE OF SEDIMENT:

CLAY
SAND
ORGANIC
SILT
GRAVEL
OTHER

EQUIPMENT USED FOR COLLECTION:

GRAVITY CORER
TULIP BULB PLANTER
S.S. HAND SPOON
ALUMINUM PAN
PLASTIC SCOOP
OTHER

DECONTAMINATION FLUIDS USED

POTABLE WATER
POTABLE WATER WITH
HIGH PRESSURE
OTHER

TYPE OF SAMPLE
COLLECTED

DISCRETE
COMPOSITE

SAMPLE OBSERVATIONS

ODOR

COLOR

AMBIENT
AIR

PPM

SAMPLE
LOCATION

PPM

pH

UNITS

ANALYTICAL PARAMETERS

PP METALS (SPECIFIED BELOW)

AL
EA
NA
CD
CR
HG
PB
TCLP METALS (SPECIFIED BELOW)
PBT
SO4
NH3N2
TOC
PH
VOC
BN/A
NG
NAM
DNT

METHOD
NUMBER

JS12

Y9

JD21

KF17

KT07

USEPA 350.2

USEPA CE-81-1

SW846 METHOD 9045

LM23

LM25

LW27

LNO8

LW23

PRESERVATION

4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
4 DEG C
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4 DEG C

VOLUME
REQUIRED

SAMPLE
COLLECTED

DC

DC

EA

SAMPLE BOTTLE ID NUMBERS

1282

1283

1284

NOTES

(LOCATION SKETCH)

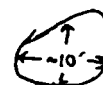
* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, B9, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 2 bottles
EA: 1 bottle

↑ N



OPS-91-04

↓ JRR

SIGNATURE:

VM/MR

RECEIVED BY:

Mary E. Roka

ABB ENVIRONMENTAL SERVICES, INC

PAGE 1 OF 1

FIELD DATA RECORD - SEDIMENT

FIELD SAMPLING NUMBER

P9110903

PROJECT: USATHAMA-BAAP

SITE TYPE

BUGR

SAMPLING DATE 9.23.91

SITE ID: PBS-91-109

JOB NUMBER

6853-04

FILE NAME CSO

LOCATION ACTIVITY

START: 0820 END: 0830

PROGRAM

C

WEATHER sunny, 70's

SEDIMENT DATA

DEPTH OF

SEDIMENT SAMPLE

3-3.5'

TYPE OF SEDIMENT:

☐ CLAY
☐ SAND
☐ ORGANIC
☒ SILT
☐ GRAVEL
☐ OTHER

EQUIPMENT USED FOR COLLECTION:

☐ GRAVITY CORER
☐ TULIP BULB PLANTER
☒ S.S. HAND SPOON
☐ ALUMINUM PAN
☐ PLASTIC SCOOP
☒ OTHER hand auger

DECONTAMINATION FLUIDS USED

☒ POTABLE WATER
☐ POTABLE WATER WITH HIGH PRESSURE
☐ OTHER

TYPE OF SAMPLE COLLECTED ☒ DISCRETE ☐ COMPOSITE

SAMPLE OBSERVATIONS

☐ ODOR
☐ COLORED

AMBIENT AIR

0.0 PPM

SAMPLE LOCATION

0.0 PPM

pH — UNITS

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	SAMPLE BOTTLE ID NUMBERS
<input checked="" type="checkbox"/> PP METALS (SPECIFIED BELOW)	JS12	4 DEG C			61
<input type="checkbox"/> AL		4 DEG C			
<input type="checkbox"/> CA		4 DEG C			
<input type="checkbox"/> NA		4 DEG C			
<input type="checkbox"/> CD		4 DEG C			
<input type="checkbox"/> CR		4 DEG C			
<input type="checkbox"/> HG	Y9	4 DEG C			
<input type="checkbox"/> PB	JD21	4 DEG C			
<input checked="" type="checkbox"/> TCLP METALS (SPECIFIED BELOW)		4 DEG C			64
<input type="checkbox"/> NI	KF17	4 DEG C			
<input type="checkbox"/> SO4	KT07	4 DEG C			
<input type="checkbox"/> NH3N2	USEPA 350.2	4 DEG C			
<input type="checkbox"/> TOC	USEPA CE-81-1	4 DEG C			
<input type="checkbox"/> PH	SW846 METHOD 9045	4 DEG C			
<input checked="" type="checkbox"/> VOC	LM23	4 DEG C			67
<input type="checkbox"/> BN/A	LM25	4 DEG C			68
<input type="checkbox"/> NG	LW27	4 DEG C			
<input type="checkbox"/> NAM	LNO8	4 DEG C			
<input type="checkbox"/> ONT	LW23	4 DEG C			70

NOTES

(LOCATION SKETCH)

* THESE ARE DATACHEM METHODS. EA METHODS: VOC LM17, LM26
B/NA LM20

PP METALS (PRIORITY POLLUTANT): AG, AS, BE, CD, CR, CU, PB, HG, NI, SB, SE, TL, ZN.
JS12, 89, JD21, JD20, Y9.

TCLP METALS: CD, CR, HG, PB.
JS12, 40 CFR 261.24

DC: 4 bottles

- 4TH + final attempt to get through rocks + debris.

SIGNATURE: vm/MDR

RECEIVED BY: Nancy E. Rofia

Appendix D.3
Monitoring Well Construction Diagrams

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name <u>BADGER AAP</u>	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>PBP-91-02D</u>
Factory License, Permit or Monitoring Number		Well Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location <u>NE 1/4 of NW 1/4 of Section 23</u>	Date Well Installed <u>10/14/91</u> m m d d y y
Distance Well Is From Water/Source Boundary <u>NA</u> ft.	T <u>10</u> N. R. <u>10</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>G. RODRIGUEZ</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Water/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	<u>LAYNE</u>

A. Protective pipe, top elevation <u>850.12</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>850.09</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>06.0</u> in. b. Length: <u>06.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 0- Other <input type="checkbox"/>
C. Land surface elevation <u>842.6</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>BUCKING POSTS</u>
D. Surface seal, bottom <u>---</u> ft. MSL or <u>---</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 3- Concrete <input checked="" type="checkbox"/> 0- Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3- Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3- Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3- Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3- <u>10</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 5- <u>150</u> Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>DUAL WALL</u> Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0- Tremie pumped <input type="checkbox"/> 0- Gravity <input checked="" type="checkbox"/> 0-
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3- <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3- <u>BENTONITE POWDER</u> Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size Volume added <u>---</u> ft ³
Describe <u>PRODUCTION WELL #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>COLORADO SILICA SAND #4</u> Volume added <u>16</u> ft ³
17. Source of water (attach analysis): <u>PRODUCTION WELL #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>627.6</u> ft. MSL or <u>220.0</u> ft.	10. Screen material: <u>PVC SCH 40</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>---</u> ft. MSL or <u>---</u> ft.	Manufacturer <u>FYMCO</u> Slot size: <u>0.01</u> in. Slot length: <u>10.0</u> ft
G. Filter pack, top <u>617.6</u> ft. MSL or <u>230.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>605.8</u> ft. MSL or <u>241.8</u> ft.	
I. Well screen, bottom <u>595.8</u> ft. MSL or <u>251.8</u> ft.	
J. Filter pack, bottom <u>594.1</u> ft. MSL or <u>253.5</u> ft.	
K. Borehole, bottom <u>594.1</u> ft. MSL or <u>253.5</u> ft.	
L. Borehole, diameter <u>02.0</u> in.	
M. O.D. well casing <u>01.35</u> in.	
N. I.D. well casing <u>01.10</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Ted R. Tustant Firm ABIS - ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

(10-23-91)

Facility/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PBN-91-06C
Facility License, Permit or Monitoring Number	Date Well Installed 10/22/91	Well Installed By: (Person's Name and Firm) GABBY RODRIGUEZ LATHE
Type of Well: Water Table Observation Well <input checked="" type="checkbox"/> Piezometer <input checked="" type="checkbox"/>	Section Location NE 1/4 of NW 1/4 of Section 23	
Distance Well Is From Waste/Source Boundary NA ft.	Location of Well relative to Waste/Source T 10 N R 6 <input checked="" type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation 842.13 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 848.29 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/>
C. Land surface elevation 846.1 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: 4 BUCKING POSTS
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 3 10 % Bentonite . . . Bentonite-cement grout <input checked="" type="checkbox"/> 50 300 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 WAL WALL Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input type="checkbox"/> 0 Gravity <input checked="" type="checkbox"/> 03
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3 BENTONITE POWDER Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size: NONE
Describe _____ 17. Source of water (attach analysis): PRODUCTION WELL #2	Volume added _____ ft ³
E. Bentonite seal, top 688.1 ft. MSL or 158.0 ft.	8. Filter pack material: Manufacturer, product name and mesh size: COLORADO SILICA SAND #4
F. Fine sand, top _____ ft. MSL or _____ ft.	Volume added 24 ft ³
G. Filter pack, top 668.1 ft. MSL or 128.0 ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/>
H. Well screen, top 655.3 ft. MSL or 790.8 ft.	10. Screen material: SCN 80 PVC
I. Well screen, bottom 645.3 ft. MSL or 200.8 ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
J. Filter pack, bottom 645.1 ft. MSL or 201.6 ft.	Manufacturer MONOFLEX
K. Borehole, bottom 626.1 ft. MSL or 220.0 ft.	Slot size: 0.010 in. Slotted length: 10.0 ft.
L. Borehole, diameter 09.0 in.	11. Backfill material (below filter pack): SURROUNDING SEDIMENT
M. O.D. well casing 04.25 in.	None <input type="checkbox"/> Other <input type="checkbox"/>
N. I.D. well casing 03.25 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

 Signature **Paul R. Ruston**

 Firm **ABB-ES**

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BADGER AAP		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name PBN-91-0615	
Facility License, Permit or Monitoring Number 84				Wis. Unique Well Number _____ UNR Well Number _____	
Type of Well: Water Table Observation Well <input type="checkbox"/> 1 Piezometer <input checked="" type="checkbox"/> 2		Section Location NE 1/4 of NW 1/4 of Section 23 T 10 N. R 12 <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Date Well Installed 10/12/91 m m d d y y	
Distance Well is From Waste/Source Boundary NA ft.		Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and firm) G. RODRIGUEZ LAYNE	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

<p>A. Protective pipe, top elevation -847.62 ft. MSL</p> <p>B. Well casing, top elevation -842.50 ft. MSL</p> <p>C. Land surface elevation -845.8 ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:</p> <p><input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP</p> <p><input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH</p> <p><input type="checkbox"/> Bedrock</p> </div> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/> _____</p> <p>15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): PRODUCTION WELL #2</p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> _____</p> <p>d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: 4 BUCKING TESTS</p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input type="checkbox"/> _____</p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> _____ Other <input type="checkbox"/> _____</p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 10 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 _____ Ft³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 BENTONITE POWDER Other <input type="checkbox"/> _____</p> <p>7. Fine sand material: Manufacturer, product name and mesh size Volume added 20-22 ft³</p> <p>8. Filter pack material: Manufacturer, product name and mesh size COLORADO SILVER SAND #4 Volume added 20 ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> _____</p> <p>10. Screen material: SCH 80 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> _____ Manufacturer MONOFLEX Slot size: 0.010 in. Slotted length: 12.0 ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> _____ Other <input type="checkbox"/> _____</p>
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<p>E. Bentonite seal, top -640.8 ft. MSL or -205.0 ft.</p> <p>F. Fine sand, top _____ ft. MSL or _____ ft.</p> <p>G. Filter pack, top -620.8 ft. MSL or -225.0 ft.</p> <p>H. Well screen, top -604.8 ft. MSL or -241.0 ft.</p> <p>I. Well screen, bottom -594.8 ft. MSL or -251.0 ft.</p> <p>J. Filter pack, bottom -594.8 ft. MSL or -251.0 ft.</p> <p>K. Borehole, bottom -594.8 ft. MSL or -251.0 ft.</p> <p>L. Borehole, diameter 0.90 in.</p> <p>M. O.D. well casing 04.5 in.</p> <p>N. I.D. well casing 03.75 in.</p>	
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Paul R. Smith* Firm *ABB-ES*

Facility/Project Name BADGER AAP		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name PBW-91-12C	
Facility License, Permit or Monitoring Number _____		Section Location NE 1/4 of NW 1/4 of Section 23		Date Well Installed 10/24/91 m m d d y y	
Type of Well: Water Table Observation Well <input type="checkbox"/> Piezometer <input checked="" type="checkbox"/>		Distance Well Is from Waste/Source Boundary NA ft.		Well Installed By: (Person's Name and Firm) LAYNE ENVIRONMENTAL G. RODRIGUEZ	
Is Well A Point of Enforcement Site Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

A. Protective pipe, top elevation **854.49** ft. MSL

B. Well casing, top elevation **854.42** ft. MSL

C. Land surface elevation **852.2** ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:

☐ GP ☐ GM ☐ GC ☐ GW ☒ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☐ 41
DUAL WALL Other ☒ _____

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PRODUCTION WELL # 2

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
 a. Inside diameter: **06.0**
 b. Length: **06.0**
 c. Material: Steel ☒ 04
 Other ☐ _____
 d. Additional protection? ☒ Yes ☐ No
 If yes, describe: **BUCKING POSTS GRAY AGU**

3. Surface seal: Bentonite ☐
 Concrete ☒
 Other ☐ _____

4. Material between well casing and protective pipe:
 Bentonite ☐
 Annular space seal ☒
 Other ☐ _____

5. Annular space seal: Granular Bentonite ☐
 Lbs/gal mud weight ... Bentonite-sand slurry
 Lbs/gal mud weight ... Bentonite slurry
 % Bentonite ... Bentonite-cement grout ☒
250 Ft³ volume added for any of the above
 How installed: Tremie ☐
 Tremie pumped ☐ 02
 Gravity ☒

6. Bentonite seal: Bentonite granules ☐
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 3
BENTONITE POWDER Other ☒

7. Fine sand material: Manufacturer, product name and mesh
NONE
 Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh
CSSI SILICA SAND #4
 Volume added **16** ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 2
 Flush threaded PVC schedule 80 ☒
 Other ☐ _____

10. Screen material: **SCN 80 PVC 40**
 Screen type: Factory cut ☒
 Continuous slot ☐ 0
 Other ☐ _____
 Manufacturer **MONOFLEX**
 Slot size: **0.010**
 Slotted length: **10.0**

11. Backfill material (below filter pack): None ☐
SURROUNDING SEDIMENT Other ☒

E. Bentonite seal, top **722.2** ft. MSL or **130.0** ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top **702.2** ft. MSL or **150.0** ft.

H. Well screen, top **678.8** ft. MSL or **173.4** ft.

I. Well screen, bottom **668.8** ft. MSL or **183.4** ft.

J. Filter pack, bottom **668.8** ft. MSL or **183.4** ft.

K. Borehole, bottom **652.2** ft. MSL or **200.0** ft.

L. Borehole, diameter **09.0** in.

M. O.D. well casing **04.25** in.

N. I.D. well casing **03.75** in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul R. Kuehn

Firm

ABB-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Factory/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PBN-91-12D
Factory License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> Piezometer <input checked="" type="checkbox"/>	Section Location NE 1/4 of NW 1/4 of Section 23	Date Well installed 10/16/91 m m d d y y
Distance Well is From Water/Source Boundary NA ft.	T. 10 N. R 6 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well installed By: (Person's Name and firm) G RODRIGUEZ
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation 853.48 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 853.29 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 ft. c. Material: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> 0.4 Other <input type="checkbox"/>
C. Land surface elevation 851.2 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: 4 BUCKING POSTS
D. Surface seal, bottom --- ft. MSL or --- ft.	3. Surface seal: <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> 3.0 <input type="checkbox"/> Concrete <input type="checkbox"/> 0.1 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> 3.0 Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3.3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3.1 10 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 5.0 400 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.2 Gravity <input checked="" type="checkbox"/> 0.3
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: <input checked="" type="checkbox"/> Bentonite granules <input type="checkbox"/> 3.3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3.2 BENTONITE POWDER Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size --- ft ³
Describe ---	8. Filter pack material: Manufacturer, product name and mesh size COLORADO SILICA SAND #4 Volume added 26 ft ³
17. Source of water (attach analysis): PRODUCTION WELL #2	9. Well casing: <input type="checkbox"/> Flush threaded PVC schedule 40 <input type="checkbox"/> 2.3 <input checked="" type="checkbox"/> Flush threaded PVC schedule 80 <input type="checkbox"/> 2.4 Other <input type="checkbox"/>
E. Bentonite seal, top 674.2 ft. MSL or 197.0 ft.	10. Screen material: PVC SCH 80 Screen type: <input checked="" type="checkbox"/> Factory cut <input type="checkbox"/> 1.1 <input type="checkbox"/> Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/>
F. Fine sand, top --- ft. MSL or --- ft.	Manufacturer MONOLIX Slot size: 0.010 in. Slotted length: 10.0 ft.
G. Filter pack, top 654.2 ft. MSL or 197.0 ft.	11. Backfill material (below filter pack): <input checked="" type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top 630.2 ft. MSL or 221.0 ft.	
I. Well screen, bottom 620.2 ft. MSL or 231.0 ft.	
J. Filter pack, bottom 620.2 ft. MSL or 231.0 ft.	
K. Borehole, bottom 620.2 ft. MSL or 231.0 ft.	
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 04.25 in.	
N. I.D. well casing 03.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul R. Ruckert** Firm **ABB-ES**

Facility/Project Name BADGER ARMY AMMUNITIONS PLANT	Grid Location 4802.308 1	Well Name PBW 89013
Facility License, Permit or Monitoring Number 27705.4	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed 01/22/89 m m d d y y
Distance Well Is From Waste/Source Boundary NA ft.	T <input type="checkbox"/> N, R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) J. SNOWDEN / E.C. JORDAN Co.
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation -832.43 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation -832.33 ft. MSL	2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 3.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation -830.0 ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: 4 BUCKING 200 ARGUMENT THE WELL
D. Surface seal, bottom NA ft. MSL or NA ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 GRAVEL PAD / Grout Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Grout Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 1400 gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Bentonite Slurry Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size Wick Volume added NA ft ³
Describe D	8. Filter pack material: Manufacturer, product name and mesh size Red Fish Silica Filter Sand Volume added 1.4 ft ³
17. Source of water (attach analysis): PCW #2	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top -327.0 ft. MSL or 143.0 ft.	10. Screen material: Schedule 80 pipe Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top NA ft. MSL or NA ft.	Manufacturer Linco Slot size: 0.019 in. Slotted length: 25.0 ft.
G. Filter pack, top -321.6 ft. MSL or 148.4 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top -315.1 ft. MSL or 154.9 ft.	
I. Well screen, bottom -310.1 ft. MSL or 159.9 ft.	
J. Filter pack, bottom -310.1 ft. MSL or 159.9 ft.	
K. Borehole, bottom -310.1 ft. MSL or 159.9 ft.	
L. Borehole, diameter 9.5 in.	
M. O.D. well casing 4.5 in.	
N. I.D. well casing 4.0 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul F. Bl** Firm **E.C. Jordan Co.**

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name BADGER ARMY AMMUNITION PLANT	Grid Location 4800.306.7	Well Name PB2-89-01C
Facility License, Permit or Monitoring Number 277129.7	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section T. N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Date Well Installed 04/17/89
Distance Well Is From Waste/Source Boundary NA ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) J. BUSS / E.C. JORDAN Co.
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation -878.30 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation -878.06 ft. MSL	2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 3.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: 4 BUCKING POST AROUND WELL
C. Land surface elevation -878.5 ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 GRAVEL PAD w/ CEMENT-BENTONITE <input checked="" type="checkbox"/>
D. Surface seal, bottom ft. MSL or ft.	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> GROUT <input checked="" type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 450 gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Bentonite slurry <input checked="" type="checkbox"/> Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL <input checked="" type="checkbox"/> Other <input type="checkbox"/>	7. Fine sand material: Manufacturer, product name and mesh size NA Volume added NA ft ³
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name and mesh size Red Flash Silver Filter Sand Volume added 2.0 ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): PW # 2	10. Screen material: Schedule 80 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top -687.5 ft. MSL or 170.0 ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> Native Case <input checked="" type="checkbox"/>
F. Fine sand, top NA ft. MSL or NA ft.	
G. Filter pack, top -677.5 ft. MSL or 180.0 ft.	
H. Well screen, top -664.4 ft. MSL or 193.1 ft.	
I. Well screen, bottom -659.4 ft. MSL or 198.1 ft.	
J. Filter pack, bottom -659.4 ft. MSL or 198.1 ft.	
K. Borehole, bottom -647.5 ft. MSL or 210.0 ft.	
L. Borehole, diameter 9.5 in.	
M. O.D. well casing 4.5 in.	
N. I.D. well casing 4.0 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature **[Signature]** Firm **E.C. Jordan Co.**

Facility/Project Name BADGER ARMY AMMUNITIONS PLANT	Grid Location 4 802.307.4 ^m <input checked="" type="checkbox"/> N. <input type="checkbox"/> S. 277.112.4 ^{ft} <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PBN-EG-01D
Facility License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well No.
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of _____ 1/4 of Section _____ T _____ N, R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed 01/20/89 m m d d y y
Distance Well Is From Waste/Source Boundary NA ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) S. SNOWDEN/EC JORDAN CO
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation 874.43 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 874.05 ft. MSL	2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 7.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 0 Other <input type="checkbox"/> d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: 4 BUCKING POST AROUND THE WELL
C. Land surface elevation 871.5 ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 3 Concrete <input type="checkbox"/> 01 GRAVEL PAD w/ CEMENT-BENTONITE COAR Other <input type="checkbox"/>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> GROUT Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 5 % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 600 gal ft³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 0 Gravity <input type="checkbox"/> 08
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3 Bentonite Slurry Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input type="checkbox"/>	7. Fine sand material: Manufacturer, product name and mesh size: NA Volume added NA ft ³
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name and mesh size: Red Flinty Silica Filter Sand Volume added 22.2 ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/> 10. Screen material: schedule 80 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/> Manufacturer Times Slot size: 0.010 Slotted length: 25.0
17. Source of water (attach analysis): PCW # 2	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
E. Bentonite seal, top 647.5 ft. MSL or 224.0 ft.	
F. Fine sand, top NA ft. MSL or NA ft.	
G. Filter pack, top 642.1 ft. MSL or 229.4 ft.	
H. Well screen, top 638.3 ft. MSL or 233.2 ft.	
I. Well screen, bottom 633.3 ft. MSL or 238.2 ft.	
J. Filter pack, bottom 622.5 ft. MSL or 249.0 ft.	
K. Borehole, bottom 622.5 ft. MSL or 249.0 ft.	
L. Borehole, diameter 9.5 in.	
M. O.D. well casing 4.5 in.	
N. I.D. well casing 4.0 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul P. Bel** Firm **E.C. Jordan**

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name BADGER ARMY AMMUNITION PLANT	Grid Location 4,802,305.1	Well Name PB/V-89-023
Facility License, Permit or Monitoring Number 277 312 G	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location ____ 1/4 of ____ 1/4 of Section ____	Date Well Installed 03/21/89 m m d d y y
Distance Well Is From Waste/Source Boundary NA ft.	T _____ N. R. _____ <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) F. BRADSON / E.C. JORDAN Co
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation 900.41 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 900.25 ft. MSL	2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 7.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation 897.6 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: BUCKING POST SURROUNDING THE WELL
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 GRAVEL w/ CEMENT-BENTONITE COLAR Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> GRAVEL Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 400 gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Bentonite Slurry Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size NA
Describe _____	Volume added NA ft ³
17. Source of water (attach analysis): PW #2	8. Filter pack material: Manufacturer, product name and mesh size Red Flint, Silica Filter Sand Volume added 1.3 ft ³
E. Bentonite seal, top 754.6 ft. MSL or 143 ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
F. Fine sand, top NA ft. MSL or NA ft.	10. Screen material: Schedule 60 PK
G. Filter pack, top 749.6 ft. MSL or 148 ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
H. Well screen, top 742.6 ft. MSL or 155 ft.	Manufacturer Timco
I. Well screen, bottom 737.6 ft. MSL or 160 ft.	Slot size: 0.010 in.
J. Filter pack, bottom 737.6 ft. MSL or 160 ft.	Slotted length: 05.0 ft.
K. Borehole, bottom 717.6 ft. MSL or 180 ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> Active Case Other <input checked="" type="checkbox"/>
L. Borehole, diameter 9.5 in.	
M. O.D. well casing 4.5 in.	
N. I.D. well casing 4.0 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **E.C. Jordan Co.** Firm **E.C. Jordan Co.**

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Facility/Project Name BADGER ARMY AMMUNITION PLANT	Grid Location 4 802,307.0 <input checked="" type="checkbox"/> N <input type="checkbox"/> S 277,290.9 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Name PBN-89-02C
Facility License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well Number
Type of Well <input type="checkbox"/> 11 Water Table Observation Well <input checked="" type="checkbox"/> 12 Piezometer	Section Location 1/4 of 1/4 of Section	Date Well Installed 03/19/89 m m d d y y
Distance Well Is From Waste/Source Boundary NA ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) J. BUSS / E.C. JORDAN CO
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation -893.18 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation -893.04 ft. MSL	2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 2.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation -894.5 ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: 4 RUCKING PITS SURROUNDING
D. Surface seal, bottom NA ft. MSL or NA ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Gravel pad w/ cement <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 2 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± 1000 g/l volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 HAMMER DRILL Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3 Bentonite slurry Other <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size NA Volume added NA ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size Red Flat, Silica Filter Sand Volume added ± 1.2 ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): PW F 2	10. Screen material: Schedule 80 PEX Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top -719.5 ft. MSL or 125.0 ft.	Manufacturer Tinto Slot size: 0.01 in. Slotted length: 05.0 ft.
F. Fine sand, top NA ft. MSL or NA ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Bentonite Grout Other <input type="checkbox"/>
G. Filter pack, top -712.5 ft. MSL or 182.0 ft.	
H. Well screen, top -706.4 ft. MSL or 188.1 ft.	
I. Well screen, bottom -701.2 ft. MSL or 193.3 ft.	
J. Filter pack, bottom -701.2 ft. MSL or 193.3 ft.	
K. Borehole, bottom -684.5 ft. MSL or 210.0 ft.	
L. Borehole, diameter 9.5 in.	
M. O.D. well casing 4.5 in.	
N. I.D. well casing 4.0 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **P. J. Buss** Firm **E.C. Jordan Co.**

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Facility/Project Name BADGER ARMY AMMUNITION PLANT	Grid Location 4802334.4	Well Name 7BN-89-03B
Facility License, Permit or Monitoring Number 276,880.1	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed 03/08/89
Distance Well Is From Waste/Source Boundary NA ft.	T. N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) DH BELAN/E.C. Jordan Co.
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation -847.03 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation -846.8 ft. MSL	2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 7.0 ft. c. Material: Steel <input type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation -844.9 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: 4 BUCKAY 2055 ENCOMPASS
D. Surface seal, bottom ft. MSL or ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 31 % Bentonite . . . Bentonite-cement grout <input type="checkbox"/> 50 + 800 gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> DUAL WALL	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input checked="" type="checkbox"/> Bentonite slurry
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size WIA Volume added NA ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size Red Fish, Silica Filter Sand Volume added ≈ 1.1 ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): PW # 2	10. Screen material: Schedule 80 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top -734.9 ft. MSL or 110.0 ft.	Manufacturer Times Slot size: 0.010 in. Slotted length: 5.0 ft.
F. Fine sand, top NA ft. MSL or NA ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> Natural Cave Other <input checked="" type="checkbox"/>
G. Filter pack, top -729.9 ft. MSL or 115.0 ft.	
H. Well screen, top -724.9 ft. MSL or 120.0 ft.	
I. Well screen, bottom -719.9 ft. MSL or 125.0 ft.	
J. Filter pack, bottom -719.9 ft. MSL or 125.0 ft.	
K. Borehole, bottom -716.9 ft. MSL or 120.0 ft.	
L. Borehole, diameter 9.5 in.	
M. O.D. well casing 4.5 in.	
N. I.D. well casing 4.0 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature **E.C. Jordan Co.** Farm

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4,802,333.9</u>	Well Name <u>PBN-89-03C</u>
Facility License, Permit or Monitoring Number	<u>226,880.7</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/09/89</u>
Distance Well Is From Waste/Source Boundary <u>N/A</u> ft.	T N, R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>D.H. Belan / E.C. Jordan Co</u>
Is Well A Point of Enforcement Sid. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>842.02</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>846.87</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.1</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 0- Other <input type="checkbox"/>
C. Land surface elevation <u>844.1</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing posts</u>
D. Surface seal, bottom <u>844.1</u> ft. MSL or <u>844.1</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± 1200 gal of volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well - percussion</u> Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite slurry</u> Other <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>N/A</u> Volume added <u>N/A</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Hill, Silver Sand</u> Volume added <u>1.4</u> ft ³
Describe <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>Sched 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>702.1</u> ft. MSL or <u>142.0</u> ft.	Manufacturer <u>Timco</u> Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft.
F. Fine sand, top <u>N/A</u> ft. MSL or <u>N/A</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
G. Filter pack, top <u>697.1</u> ft. MSL or <u>147.0</u> ft.	
H. Well screen, top <u>689.1</u> ft. MSL or <u>155.0</u> ft.	
I. Well screen, bottom <u>684.1</u> ft. MSL or <u>160.0</u> ft.	
J. Filter pack, bottom <u>684.1</u> ft. MSL or <u>160.0</u> ft.	
K. Borehole, bottom <u>684.1</u> ft. MSL or <u>160.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>9.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature D.H. Belan Firm E.C. Jordan Co

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Facility/Project Name <u>Bedger Army Ammunition Plant</u>	Grid Location <u>4,801,782.3</u>	Well Name <u>PBN-89-04B</u>
Facility License, Permit or Monitoring Number	<u>291,097.8</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/12/89</u> m m d d v v
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T N, R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>P. Bolmer / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation 859.40 ft. MSL

B. Well casing, top elevation 859.23 ft. MSL

C. Land surface elevation 856.9 ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6.0 in.
b. Length: 2.0 ft.
c. Material: Steel ☒ 04
Other ☐
d. Additional protection? ☐ Yes ☒ No
If yes, describe: 4 backing plates

3. Surface seal: Bentonite ☐ 30
Concrete ☐ 01
Other ☒

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☐
Other ☒

5. Annular space seal: Granular Bentonite ☐ 33
Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
Lbs/gal mud weight . . . Bentonite slurry ☐ 31
5 % Bentonite . . . Bentonite-cement grout ☒ 50
310 gal volume added for any of the above
How installed: Tremie ☐ 01
Tremie pumped ☒ 02
Gravity ☐ 08

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
Bentonite Slurry Other ☒

7. Fine sand material: Manufacturer, product name and mesh size
NA
Volume added NA ft³

8. Filter pack material: Manufacturer, product name and mesh size
Red Flat Silica Sand
Volume added 2.1 ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐

10. Screen material: Schedule 80 PVC
Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐

Manufacturer Unico
Slot size: 0.010 in.
Slot length: 5.0 ft.

11. Backfill material (below filter pack): None ☐
Native Sand Other ☒

E. Bentonite seal, top 232.1 ft. MSL or 119.8 ft.

F. Fine sand, top NA ft. MSL or NA ft.

G. Filter pack, top 232.1 ft. MSL or 124.8 ft.

H. Well screen, top 212.9 ft. MSL or 139.0 ft.

I. Well screen, bottom 212.9 ft. MSL or 144.0 ft.

J. Filter pack, bottom 212.9 ft. MSL or 144.0 ft.

K. Borehole, bottom 206.9 ft. MSL or 150.0 ft.

L. Borehole, diameter 9.5 in.

M. O.D. well casing 9.5 in.

N. I.D. well casing 9.0 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P. Bolmer Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Boulder Dam Ammunition Plant</u>	Grid Location <u>4,801,775.2</u> <u>277,160.6</u>	Well Name <u>PSN-89-04C</u>
Facility License, Permit or Monitoring Number	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of _____ 1/4 of Section _____	Date Well Installed <u>09/16/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T _____ N, R _____ E _____ W _____	Well Installed By: (Person's Name and Firm) <u>J. Buss / E. C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation 860.51 ft. MSL

B. Well casing, top elevation 859.72 ft. MSL

C. Land surface elevation 852.7 ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:

☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☐ 41
Dual Well Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top 712.2 ft. MSL or 140.0 ft.

F. Fine sand, top NA ft. MSL or NA ft.

G. Filter pack, top 692.2 ft. MSL or 165.0 ft.

H. Well screen, top 682.2 ft. MSL or 155.5 ft.

I. Well screen, bottom 672.2 ft. MSL or 140.5 ft.

J. Filter pack, bottom 662.2 ft. MSL or 130.0 ft.

K. Borehole, bottom 662.2 ft. MSL or 130.0 ft.

L. Borehole, diameter 9.5 in.

M. O.D. well casing 4.5 in.

N. I.D. well casing 4.2 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
 a. Inside diameter: 6.0 in.
 b. Length: 2.0 ft.
 c. Material: Steel ☒ 04
 Other ☐
 d. Additional protection? ☒ Yes ☐ No
 If yes, describe: 9 backing tests

3. Surface seal: Bentonite ☐ 30
 Concrete ☐ 01
 Other ☒ Grout

4. Material between well casing and protective pipe:
 Bentonite ☐ 30
 Annular space seal ☐
 Other ☒ Grout

5. Annular space seal: Granular Bentonite ☐ 33
 Lbs/gal mud weight ... Bentonite-sand slurry ☐ 36
 Lbs/gal mud weight ... Bentonite slurry ☐ 31
 % Bentonite ... Bentonite-cement grout ☒ 50
400 gal volume added for any of the above
 How installed: Tremie ☐ 01
 Tremie pumped ☒ 02
 Gravity ☐ 08

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
Bentonite slurry Other ☒

7. Fine sand material: Manufacturer, product name and mesh size
NA
 Volume added NA ft³

8. Filter pack material: Manufacturer, product name and mesh size
Red Chip, Silica sand
 Volume added 3.28 ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
 Flush threaded PVC schedule 80 ☒ 24
 Other ☐

10. Screen material: Schedule 80 90c
 Screen type: Factory cut ☒ 11
 Continuous slot ☐ 01
 Other ☐

Manufacturer Timco
 Slot size: 0.010 in.
 Slotted length: 5.0 ft.

11. Backfill material (below filter pack): None ☐
Wet Fill Other ☒

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E. C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bedger Army Ammunition Plant</u>	Grid Location <u>4,802,323.1</u>	Well Name <u>PBM-89-05</u>
Facility License, Permit or Monitoring Number <u>NA</u>	<u>276,741.2</u>	Wis. Unique Well Number <u>NA</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location <u>1/4 of 1/4 of Section</u>	Date Well Installed <u>03/06/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N, R <u>NA</u> E, W <u>NA</u>	Well Installed By: (Person's Name and Firm) <u>Bill Metzger / E. C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

- A. Protective pipe, top elevation -855.20 ft. MSL
- B. Well casing, top elevation -855.58 ft. MSL
- C. Land surface elevation -852.3 ft. MSL
- D. Surface seal, bottom NA ft. MSL or NA ft.

12. USCS classification of soil near screen:

- ☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe

17. Source of water (attach analysis):
PW #2

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 6.0 in.
b. Length: 2.0 ft.
c. Material: Steel ☒ 04
Other ☐
- d. Additional protection? ☒ Yes ☐ No
If yes, describe: 4 bucking tests

3. Surface seal: Bentonite ☐ 30
Concrete ☐ 01
Other ☒ Gout

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☐
Other ☒ Gout

5. Annular space seal: Granular Bentonite ☐ 33
Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
Lbs/gal mud weight ... Bentonite slurry ☐ 31
% Bentonite ... Bentonite-cement grout ☒ 50
5 volume added for any of the above
How installed: Tremie ☐ 01
Tremie pumped ☒ 02
Gravity ☐ 08

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite pellets ☒ 32
Other ☐

7. Fine sand material: Manufacturer, product name and mesh size
NA
Volume added NA ft³

8. Filter pack material: Manufacturer, product name and mesh size
Red Hat Sand
Volume added 3.3 ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐

10. Screen material: Schedule 80 PVC
Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐

- Manufacturer Timco
Slot size: 0.010 in.
Slotted length: 20.0 ft.

11. Backfill material (below filter pack): None ☐
Native Grl Other ☒

E. Bentonite seal, top -787.3 ft. MSL or -65.0 ft.

F. Fine sand, top NA ft. MSL or NA ft.

G. Filter pack, top -782.6 ft. MSL or -69.7 ft.

H. Well screen, top -776.8 ft. MSL or -25.5 ft.

I. Well screen, bottom -756.8 ft. MSL or -95.5 ft.

J. Filter pack, bottom -752.3 ft. MSL or 100.0 ft.

K. Borehole, bottom -752.3 ft. MSL or 100.0 ft.

L. Borehole, diameter 9.5 in.

M. O.D. well casing 4.5 in.

N. I.D. well casing 4.0 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Firm

E. C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4,802,328.9</u> <u>270,473.6</u>	Well Name <u>PBM-89-06</u>
Facility License, Permit or Monitoring Number	<u>7</u> ft <input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <u>7</u> ft <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>04/30/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Christie Moore / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation 886.50 ft. MSL ☒ Yes ☐ No

B. Well casing, top elevation 886.37 ft. MSL

C. Land surface elevation 883.7 ft. MSL

D. Surface seal, bottom ft. MSL or ft.

12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Dual Well Other ☒

15. Drilling fluid used: Water ☐ 02 Air ☒ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top 787.2 ft. MSL or 96.0 ft.

F. Fine sand, top NA ft. MSL or NA ft.

G. Filter pack, top 779.7 ft. MSL or 104.0 ft.

H. Well screen, top 767.2 ft. MSL or 116.0 ft.

I. Well screen, bottom 747.2 ft. MSL or 136.0 ft.

J. Filter pack, bottom 744.2 ft. MSL or 139.0 ft.

K. Borehole, bottom 723.2 ft. MSL or 160.0 ft.

L. Borehole, diameter 9.5 in.

M. O.D. well casing 4.5 in.

N. I.D. well casing 4.0 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6.0 in.
b. Length: 2.0 ft.
c. Material: Steel ☒ 0-
Other ☐
d. Additional protection? ☒ Yes ☐ No
If yes, describe: 4 bursting pads

3. Surface seal: Bentonite ☐ 30
Concrete ☐ 0
Other ☒ Grout

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☐ Grout
Other ☒

5. Annular space seal: Granular Bentonite ☐ 3
 Lbs/gal mud weight ... Bentonite-sand slurry ☐
 Lbs/gal mud weight ... Bentonite slurry ☐ 3
5 % Bentonite ... Bentonite-cement grout ☒ 50
± 400 g/l volume added for any of the above
How installed: Tremie ☐ 01
Tremie pumped ☒ 02
Gravity ☐ 08

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
Other ☐

7. Fine sand material: Manufacturer, product name and mesh size
NA
Volume added NA ft³

8. Filter pack material: Manufacturer, product name and mesh size
Red Flat Silver Sand
Volume added ± 39 ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐

10. Screen material: Schedule 80 PVC
Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐

Manufacturer Timco
Slot size: 0.010 in.
Slotted length: 20.0 ft.

11. Backfill material (below filter pack): None ☐
Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 161 Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Deer Army Ammunition Plant</u>	Grid Location <u>4, 501, 794.0</u> <u>226, 910.3</u>	Well Name <u>FBM-89-07</u>
Facility License, Permit or Monitoring Number	<u>226, 910.3</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/03/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <input type="checkbox"/> N, R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Bruce Butler / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>849.56</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>849.36</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>846.6</u> ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>400</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, silica sand</u> Volume added <u>2.9</u> ft ³
Describe <u>FW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>FW #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>784.6</u> ft. MSL or <u>62.0</u> ft.	Manufacturer <u>Tiwo</u> Slot size: <u>0.012</u> in. Slotted length: <u>12.4</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Red Flint</u> Other <input checked="" type="checkbox"/>
G. Filter pack, top <u>780.1</u> ft. MSL or <u>66.5</u> ft.	
H. Well screen, top <u>764.1</u> ft. MSL or <u>92.5</u> ft.	
I. Well screen, bottom <u>754.1</u> ft. MSL or <u>92.5</u> ft.	
J. Filter pack, bottom <u>754.1</u> ft. MSL or <u>92.5</u> ft.	
K. Borehole, bottom <u>751.6</u> ft. MSL or <u>95.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul B. Firm E.C. Jordan Co.

Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4,801,728.3</u> <u>277,305.0</u>	Well Name <u>PBM-89-08</u>
Facility License, Permit or Monitoring Number	Section Location <u>1/4 of 1/4 of Section</u>	Wis. Unique Well Number <u>03/14/89</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Well Installed By: (Person's Name and Firm) <u>Rich Allen / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>888.22</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>888.56</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>885.5</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing Pabs</u>
D. Surface seal, bottom <u>885.5</u> ft. MSL or <u>885.5</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 = <u>260</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 31 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Sand</u> Volume added <u>2.8</u> ft ³
Describe <u>pw #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>pw #2</u>	10. Screen material: <u>Schedule 80 pipe</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>790.5</u> ft. MSL or <u>795.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native core</u> Other <input checked="" type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	
G. Filter pack, top <u>785.5</u> ft. MSL or <u>790.0</u> ft.	
H. Well screen, top <u>780.5</u> ft. MSL or <u>785.0</u> ft.	
I. Well screen, bottom <u>760.5</u> ft. MSL or <u>765.0</u> ft.	
J. Filter pack, bottom <u>760.5</u> ft. MSL or <u>765.0</u> ft.	
K. Borehole, bottom <u>755.5</u> ft. MSL or <u>760.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bellevue Army Ammunition Plant</u>	Grid Location <u>4, 603, 218.5</u> <u>277, 225.5</u>	Well Name <u>PBM-89-09</u>
Facility License, Permit or Monitoring Number <u>NA</u>	Section Location <u>1/4 of 1/4 of Section</u> T <u>NA</u> N, R <u>NA</u> E, W <u>NA</u>	Wia. Unique Well Number <u>0310189</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Date Well Installed <u>03/01/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Well Installed By: (Person's Name and Firm) <u>Jeff Pickett / E.C. Jordan Co.</u>

A. Protective pipe, top elevation <u>883.54</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>883.48</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>880.6</u> ft. MSL	d. Additional protection? If yes, describe: <u>4 backing posts</u> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight <u>NA</u> Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight <u>NA</u> Bentonite slurry <input type="checkbox"/> 31 % Bentonite <u>5</u> Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± <u>900</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 03
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat Silver Filter Sand</u> Volume added <u>2.8</u> ft ³
Describe <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>187.6</u> ft. MSL or <u>13.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Red Flat Silver</u> Other <input checked="" type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	
G. Filter pack, top <u>182.6</u> ft. MSL or <u>98.0</u> ft.	
H. Well screen, top <u>177.6</u> ft. MSL or <u>103.0</u> ft.	
I. Well screen, bottom <u>157.6</u> ft. MSL or <u>133.0</u> ft.	
J. Filter pack, bottom <u>157.6</u> ft. MSL or <u>122.0</u> ft.	
K. Borehole, bottom <u>155.6</u> ft. MSL or <u>125.0</u> ft.	
L. Borehole, diameter <u>2.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Bridge Run Ammonia Plant</u>	Grid Location <u>4,802,838.7</u> <u>277,270.4</u>	Well Name <u>PSN-89-10A</u>
Facility License, Permit or Monitoring Number	<u>277,270.4</u>	Wis. Unique Well Number <u> </u> DNR Well Number <u> </u>
Type of Well <input checked="" type="checkbox"/> Water Table Observation Well <input type="checkbox"/> Piezometer	Section Location <u>1/4 of 1/4 of Section</u>	Date Well Installed <u>02/22/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N <u> </u> R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>D.H. Belan / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>289.29</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>289.65</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>286.8</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking Posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/> <u>Grout</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 250 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well</u> Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Filter Sand</u> Volume added <u>± 3.1</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>294.8</u> ft. MSL or <u>92.0</u> ft.	10. Screen material: <u>schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Timco</u> Slot size: <u>0.010</u> in. Slotted length: <u>20.0</u> ft.
G. Filter pack, top <u>287.3</u> ft. MSL or <u>99.5</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Grout</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>278.8</u> ft. MSL or <u>109.0</u> ft.	
I. Well screen, bottom <u>258.8</u> ft. MSL or <u>128.0</u> ft.	
J. Filter pack, bottom <u>258.8</u> ft. MSL or <u>128.0</u> ft.	
K. Borehole, bottom <u>256.8</u> ft. MSL or <u>130.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4,802,839.4</u> <u>7</u> <input checked="" type="checkbox"/> N. <input type="checkbox"/> S.	Well Name <u>PBN-89-10B</u>
Facility License, Permit or Monitoring Number <u>277,282.1</u>	<u>7</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number <u> </u> DNR Well Number <u> </u>
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of <u> </u> 1/4 of Section <u> </u>	Date Well Installed <u>02/25/89</u> m m d d v v
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N. R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave H. Belan / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>891.99</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>891.81</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> <u> </u>
C. Land surface elevation <u>889.1</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking bolts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> <u>Grout</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u>Grout</u> Other <input checked="" type="checkbox"/> <u> </u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 + <u>400</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Dead Well</u>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/> <u> </u>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silver Filter Sand</u> Volume added <u>64</u> ft ³
Describe <u> </u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> <u> </u>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> <u> </u>
E. Bentonite seal, top <u>240.1</u> ft. MSL or <u>149.0</u> ft.	Manufacturer <u>Tinco</u> Slot size: <u>0.016</u> in. Slotted length: <u>2.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/> <u> </u>
G. Filter pack, top <u>135.1</u> ft. MSL or <u>154.0</u> ft.	
H. Well screen, top <u>222.4</u> ft. MSL or <u>161.2</u> ft.	
I. Well screen, bottom <u>223.4</u> ft. MSL or <u>166.2</u> ft.	
J. Filter pack, bottom <u>222.4</u> ft. MSL or <u>166.2</u> ft.	
K. Borehole, bottom <u>222.4</u> ft. MSL or <u>166.2</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4802, 838.4</u>	Well Name <u>PBN-89-10C</u>
Facility License, Permit or Monitoring Number	<u>277,259.1</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/03/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N <u> </u> R <u> </u> E <u> </u> W	Well Installed By: (Person's Name and Firm) <u>Dave A. Belen / E.C. Jordan Co</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>887.04</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>887.00</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>884.2</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 5 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 1100 gal ft³</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Direct Well</u> Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Man. <u>NA</u> mesh size Volume added <u>NA</u> ft ³
Describe <u> </u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Blk, Silica Filter Sand</u> Volume added <u>± 11</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>707.2</u> ft. MSL or <u>172.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft.
G. Filter pack, top <u>702.2</u> ft. MSL or <u>182.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native sand</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>697.7</u> ft. MSL or <u>187.0</u> ft.	
I. Well screen, bottom <u>692.7</u> ft. MSL or <u>192.0</u> ft.	
J. Filter pack, bottom <u>692.7</u> ft. MSL or <u>192.0</u> ft.	
K. Borehole, bottom <u>699.2</u> ft. MSL or <u>205.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul A. Belen Firm E.C. Jordan Co.

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Facility/Project Name <u>Budger Heavy Ammunition Plant</u>		Grid Location <u>4,802,835.9</u> <u>M</u> <input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <u>277,226.0</u> ft. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>DBN-69-100</u>	
Facility License, Permit or Monitoring Number		Section Location 1/4 of 1/4 of Section		Date Well Installed <u>04/22/89</u> m m d d y y	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		T <input type="checkbox"/> N. R <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) <u>Christian Moore / E.C. Jordan Co.</u>	
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

<p>A. Protective pipe, top elevation <u>884.39</u> ft. MSL</p> <p>B. Well casing, top elevation <u>884.25</u> ft. MSL</p> <p>C. Land surface elevation <u>880.9</u> ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock</p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well</u> Other <input checked="" type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): <u>PW #2</u></p> </div> <p>E. Bentonite seal, top <u>661.9</u> ft. MSL or <u>213</u> ft.</p> <p>F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.</p> <p>G. Filter pack, top <u>659.9</u> ft. MSL or <u>221.0</u> ft.</p> <p>H. Well screen, top <u>648.9</u> ft. MSL or <u>232.0</u> ft.</p> <p>I. Well screen, bottom <u>643.9</u> ft. MSL or <u>232.0</u> ft.</p> <p>J. Filter pack, bottom <u>643.9</u> ft. MSL or <u>232.0</u> ft.</p> <p>K. Borehole, bottom <u>625.9</u> ft. MSL or <u>255.0</u> ft.</p> <p>L. Borehole, diameter <u>2.5</u> in.</p> <p>M. O.D. well casing <u>4.5</u> in.</p> <p>N. I.D. well casing <u>4.0</u> in.</p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking Pats</u></p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u></p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 <u>Grout</u> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 580 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft³</p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>Red Blush Silica Filter Sand</u> Volume added <u>± 1.5</u> ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/></p> <p>10. Screen material: <u>Schedule 60 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/></p> <p>Manufacturer <u>Tingo</u> Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft.</p> <p>11. Backfill material (below filter pack): None <input type="checkbox"/> Other <input type="checkbox"/></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul E. Bl... Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4,803,527.2</u>	Well Name <u>PBM-89-11</u>
Facility License, Permit or Monitoring Number <u>NA</u>	<u>277,261.9</u>	Wis. Unique Well Number <u>03/07/89</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location <u>1/4 of 1/4 of Section</u>	Date Well Installed <u>03/07/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N, R <u>NA</u> E <u>NA</u> W	Well Installed By: (Person's Name and Firm) <u>John Snowden / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>884.49</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>884.41</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in b. Length: <u>1.0</u> ft c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>881.6</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing Parts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 36 = <u>210</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silver Filter Sand</u> Volume added <u>3.2</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>804.6</u> ft. MSL or <u>72.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Timco</u> Slot size: <u>0.010</u> in. Slotted length: <u>20.0</u> ft
G. Filter pack, top <u>299.6</u> ft. MSL or <u>82.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Detrital Case</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>290.6</u> ft. MSL or <u>91.0</u> ft.	
I. Well screen, bottom <u>220.6</u> ft. MSL or <u>111.0</u> ft.	
J. Filter pack, bottom <u>220.6</u> ft. MSL or <u>111.0</u> ft.	
K. Borehole, bottom <u>251.6</u> ft. MSL or <u>130.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4,501,376.7</u>	Well Name <u>PBN-89-12A</u>
Facility License, Permit or Monitoring Number <u>277,058.9</u>	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/02/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <input type="checkbox"/> N. R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Brian Butler / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>-855.21</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>-855.66</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>-852.6</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking bolts</u>
D. Surface seal, bottom <u>ft. MSL or ft.</u>	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight... Bentonite slurry <input type="checkbox"/> 31 % Bentonite... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± <u>800</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flt, Silver Filter Sand</u> Volume added <u>± 2.4</u> ft ³
Describe <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>-781.7</u> ft. MSL or <u>-70.9</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native Cave</u> Other <input checked="" type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	
G. Filter pack, top <u>-726.5</u> ft. MSL or <u>-76.1</u> ft.	
H. Well screen, top <u>-721.9</u> ft. MSL or <u>-80.7</u> ft.	
I. Well screen, bottom <u>-754.9</u> ft. MSL or <u>-100.7</u> ft.	
J. Filter pack, bottom <u>-754.6</u> ft. MSL or <u>-98.0</u> ft.	
K. Borehole, bottom <u>-747.6</u> ft. MSL or <u>-105.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul J. Butler Firm E.C. Jordan Co.

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Facility/Project Name <u>Bader Dairy Processing Plant</u>	Grid Location <u>4,801,38.5</u> <u>27,058.5</u>	Well Name <u>PBW-89-12B</u>
Facility License, Permit or Monitoring Number	<u>NA</u> <u>ft</u> <u>ft</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>09/15/89</u> m m d d v v
Distance Well Is From Waste/Source Boundary <u>NA</u> ft	T <u>NA</u> N. R. <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Jim Buss / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>856.33</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>856.04</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6</u> in. b. Length: <u>2</u> ft c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
C. Land surface elevation <u>852.6</u> ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0: Other <input checked="" type="checkbox"/> <u>Gout</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Gout</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 + <u>300</u> gal <u>ft</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Drill Wall</u>	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Filler Sand</u> Volume added <u>~1.5</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
Describe <u>PW #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0: Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft
E. Bentonite seal, top <u>138.6</u> ft. MSL or <u>114.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native sand</u> Other <input checked="" type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	
G. Filter pack, top <u>128.6</u> ft. MSL or <u>124.0</u> ft.	
H. Well screen, top <u>119.6</u> ft. MSL or <u>133.0</u> ft.	
I. Well screen, bottom <u>114.6</u> ft. MSL or <u>138.0</u> ft.	
J. Filter pack, bottom <u>114.6</u> ft. MSL or <u>138.0</u> ft.	
K. Borehole, bottom <u>112.6</u> ft. MSL or <u>140.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

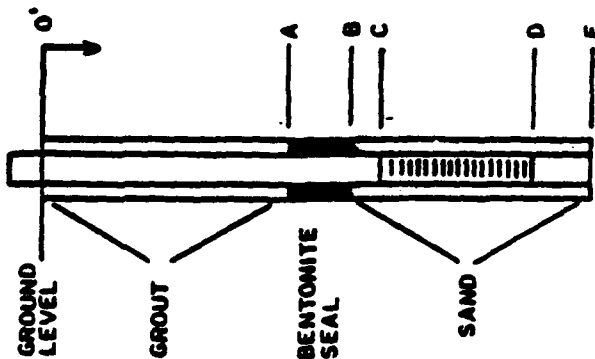
I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

US ARMY ENVIRONMENTAL HYGIENE AGENCY
GROUNDWATER MONITOR WELL SUMMARY

PROJECT Badger AAP DATE 9 Sep - 9 Oct 85



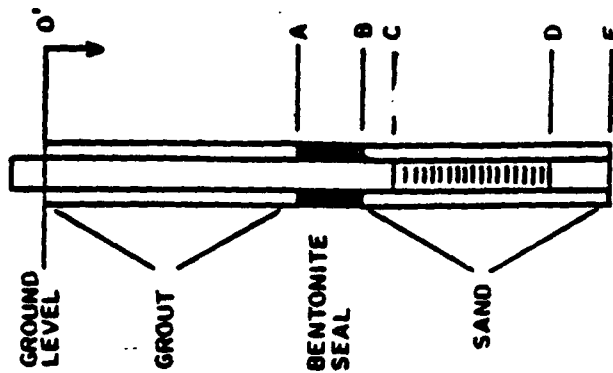
A - TOP OF BENTONITE SEAL
B - TOP OF SAND
C - TOP OF WELL SCREEN
D - TOP OF SEDIMENT TRAP
E - TOTAL WELL DEPTH

All measurements in feet except as noted

WELL NO.	PBM-85-01A	PBM-85-02A	PBM-85-03A	PBM-85-04A				
A	35.0	60.0	66.0	84.0				
B	41.0*	66.0	72.0	90.0				
C	108.7	125.1	81.7	99.5				
D	117.7	134.1	90.7	108.5				
E	118.7	135.1	91.7	109.5				
GROUT THICKNESS	35.0	60.0	66.0	84.0				
BENTONITE SEAL THICKNESS	6.0	6.0	6.0	6.0				
LENGTH OF STANDPIPE	3.6	3.4	3.3	3.3				
LENGTH OF SCREEN	9.0	9.0	9.0	9.0				
LENGTH OF SEDIMENT TRAP	1.0	1.0	1.0	1.0				
SCREEN SLOT SIZE (IN)	.010	.010	.010	.010				
Water Level from Top Steel Casing	102.4	127.3	79.2	90.1				
Water Level from Ground Surface	98.8	124.1	75.9	86.8				
Elevation Top Steel Casing	873.11	892.60	849.76	858.39				
REMARKS	*Gravel and cobbles collapsed into the borehole							

US ARMY ENVIRONMENTAL HYGIENE AGENCY
GROUNDWATER MONITOR WELL SUMMARY

PROJECT Badger AAP DATE 9 Sep - 9 Oct 85



- A - TOP OF BENTONITE SEAL
- B - TOP OF SAND
- C - TOP OF WELL SCREEN
- D - TOP OF SEDIMENT TRAP
- E - TOTAL WELL DEPTH

All measurements in feet except as noted

WELL NO.	PBM-85-01	PBM-85-02	PBM-85-03	PBM-85-04	PBM-85-05	PBM-85-06
A	36.0	31.0	63.0	88.0	77.0	67.0
B	42.0*	40.0*	70.0*	94.0	83.0	73.0
C	108.4	88.9	135.7	112.0	94.9	85.2
D	111.4	97.9	144.7	121.0	103.9	94.2
E	118.4	98.9	145.7	122.0	104.9	95.2
GROUT THICKNESS	36.0	31.0	63.0	88.0	77.0	67.0
BENTONITE SEAL THICKNESS	6.0	9.0	7.0	6.0	6.0	6.0
LENGTH OF SCREEN	3.9	3.3	3.4	3.7	3.6	3.3
LENGTH OF SEDIMENT TRAP	9.0	9.0	9.0	9.0	9.0	9.0
SCREEN SLOT SIZE (IN)	.010	.010	.010	.010	.010	.010
Water Level from Top Steel Casing	90.5	77.0	114.2	95.9	94.1	79.5
Water Level from Ground Surface	86.6	73.7	110.8	92.2	90.5	76.2
Elevation Top Steel Casing	861.72	847.80	884.75	865.74	863.23	846.78
REMARKS	*Gravel and cobbles collapsed into the borehole					

WELL CONSTRUCTION FORMS

Background Wells

BGM-91-01
BGM-91-02
BGM-91-03

Propellant Burning Ground

PBP-91-01B
PBP-91-01C
PBP-91-01D
PBP-91-02B
PBP-91-02C
PBP-91-02D
PBN-91-06C
PBN-91-06D
PBN-91-12C
PBN-91-12D
PBN-89-01B
PBN-89-01C
PBN-89-01D
PBN-89-02B
PBN-89-02C
PBN-89-03B
PBN-89-03C
PBN-89-04B
PBN-89-04C
PBM-89-05
PBM-89-06
PBM-89-07
PBM-89-08
PBM-89-09
PBN-89-10A
PBN-89-10B
PBN-89-10C
PBN-89-10D
PBM-89-11
PBN-89-12A
PBN-89-12B
PBM-85-01
PBM-85-02
PBM-85-03
PBM-85-04
PBM-85-05
PBM-85-06
PBN-85-01A
PBN-85-02A
PBN-85-03A

PBN-85-04A
PBM-82-01
PBM-82-02
PBM-82-03
PBM-82-04
PBM-82-05
PBN-82-01A
PBN-82-01B
PBN-82-01C
PBN-82-02A
PBN-82-02B
PBN-82-02C
PBN-82-03A
PBN-82-03B
PBN-82-03C
PBN-82-04A
PBN-82-04B
PBN-82-04C
PBN-82-05A
PBN-82-05B
PBN-82-05C

Landfill 1

LOM-91-01
LOM-91-02
LOM-89-01
LON-89-02A
LON-89-02B
LON-89-03A
LON-89-03B

Settling Ponds and Spoils Disposal Area

SPN-91-02D
SPN-91-03D
SPN-91-04D
SPN-89-01C
SPN-89-02A
SPN-89-02B
SPN-89-02C
SPN-89-03B
SPN-89-03C
SPN-89-04B
SPN-89-04C
SPN-89-05A
SPN-89-05B

Deterrent Burning Ground

DBM-89-01
DBN-89-02A
DBN-89-02B
DBM-89-03
DBN-89-04A
DBN-89-04B
DBM-89-05
DBM-82-01
DBM-82-02
DBN-82-01B
DBN-82-01C

Existing Landfill

ELN-91-07A
ELN-91-07B
ELM-91-10
ELM-89-01
ELN-89-02A
ELN-89-02B
ELM-89-03
ELN-89-04A
ELN-89-04B
ELM-89-05
ELN-89-06B
ELM-89-07
ELM-89-08
ELM-89-09
ELN-82-01A
ELN-82-01B
ELN-82-01C
ELN-82-02A
ELN-82-02B
ELN-82-02C
ELN-82-03A
ELN-82-03B
ELN-82-03C
ELN-82-04A
ELN-82-04B
ELN-82-04C

Rocket Paste Area

RPM-91-01
RPM-89-01
RPM-89-02

Nitroglycerine Pond	SWN-91-05B
	SWN-91-05C
NPM-89-01	SWN-91-05D
New Acid Area	Base-wide
NAN-81-01A	S1101
NAN-81-02B	S1102
NAN-81-03B	S1103
NAN-81-03C	S1104
NAN-81-04B	S1105
NAN-81-04C	S1106
	S1107
Oleum Plant	S1108
and Pond	S1109
	S1110
OPM-89-01	S1111
OPM-89-02	S1112
OPM-89-03	S1113
	S1114
Old Acid Area	S1115
	S1116
OAM-91-01	S1117
OAM-89-01	S1118
OAM-89-02	S1119
	S1120
Old Fuel Oil Tank	S1121
	S1122
FTM-89-01	S1123
PHM-91-01	S1124
	S1125
Off-Post (South)	S1126
	S1127
PBN-91-01C	S1128
PBN-91-02B	S1129
PBN-91-02C	S1130
PBN-91-03B	S1131
PBN-91-03C	S1132
PBM-90-01D	S1133
PBM-90-02D	S1134
PBM-90-03D	S1135
PBN-90-04B	S1145
PBN-90-04D	S1146
SWN-91-01B	S1147
SWN-91-01C	S1148
SWN-91-01D	S1149
SWN-91-02C	S1150
SWN-91-02D	S1151
SWN-91-03B	S1152A
SWN-91-03C	S1152B
SWN-91-03D	S1153
SWN-91-03E	
SWN-91-04C	
SWN-91-04D	

Facility/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name BUM-91-01
Facility License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 1 Piezometer <input type="checkbox"/> 2	Section Location SW 1/4 of NE 1/4 of Section 3	Date Well installed 10/28/91 m m d d y y
Distance Well is From Waste/Source Boundary NA ft.	T 10 N. R. G. NE <input type="checkbox"/> W	Well installed By: (Person's Name and Firm) GABBY RODRIGUEZ
Is Well A Point of Enforcement Sit. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input checked="" type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE ENVIRONMENTAL

A. Protective pipe, top elevation -874.15 ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
B. Well casing, top elevation -876.01 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 0.4 Other <input type="checkbox"/>
C. Land surface elevation -873.8 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: BUCKING POSTS GRAN PAD
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3.0 Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3.3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3.1 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 5.0 75 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 5.0 Hollow Stem Auger <input type="checkbox"/> 4.1 DUAL WSL Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.2 Gravity <input checked="" type="checkbox"/> 0.8
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 0.2 Air <input type="checkbox"/> 0.1 Drilling Mud <input type="checkbox"/> 0.3 None <input type="checkbox"/> 9.9	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3.3 <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 3.2 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size None
Describe _____	Volume added _____ ft ³
17. Source of water (attach analysis): PRODUCTION WELL #2	8. Filter pack material: Manufacturer, product name and mesh size CSSI SILICA SAND #4
	Volume added 26 ft ³
E. Bentonite seal, top -877.3 ft. MSL or 046.5 ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2.3 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 2.4 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	10. Screen material: SCN 80 4" Diam PVC
G. Filter pack, top -820.8 ft. MSL or 053.0 ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/>
H. Well screen, top -813.5 ft. MSL or 061.3 ft.	Manufacturer MONORLEX
I. Well screen, bottom -802.5 ft. MSL or 071.3 ft.	Slot size: 0.062 in.
J. Filter pack, bottom -795.8 ft. MSL or 078.0 ft.	Slot length: 01.0 ft.
K. Borehole, bottom -795.8 ft. MSL or 078.0 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 04.25 in.	
N. I.D. well casing 02.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Rod R. Rusk** Firm **ABB-ES**

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION

Facility/Project Name <u>BADGER AAP</u>		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>BGM-91-02</u>	
Facility License, Permit or Monitoring Number _____				Wis. Unique Well Number <input type="checkbox"/> DNK Well No. <input type="checkbox"/>	
Type of Well: Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed <u>11/06/91</u> m m d d y y	
Distance Well is From Waste/Source Boundary <u>NA</u> ft.		T _____ N. R. <input type="checkbox"/> E <input type="checkbox"/> W		Well installed By: (Person's Name and firm) <u>G. RODRIGUEZ</u>	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input checked="" type="checkbox"/> Upgradient <input type="checkbox"/> Subgradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		<u>LOVRE</u>	

<p>A. Protective pipe, top elevation <u>876.23</u> ft. MSL</p> <p>B. Well casing, top elevation <u>876.61</u> ft. MSL</p> <p>C. Land surface elevation <u>874.4</u> ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:</p> <p><input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP</p> <p><input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH</p> <p><input type="checkbox"/> Bedrock</p> </div> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>DUAL WALL REV. AIR</u> Other <input checked="" type="checkbox"/></p> <p>15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): <u>PRODUCTION WELL #2</u> </p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>08.0</u> in. b. Length: <u>06.0</u> ft. c. Material: Steel <input type="checkbox"/> Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>3" SCH. 40 STEEL PIPE, GRW PAD</u> </p> <p>3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/></p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> _____ Lbs/gal mud weight Bentonite-sand slurry _____ Lbs/gal mud weight Bentonite slurry <u>5</u> % Bentonite Bentonite-cement grout <u>100</u> Ft³ volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> Gravity <input checked="" type="checkbox"/> 0 </p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> Other <input type="checkbox"/> </p> <p>7. Fine sand material: Manufacturer, product name and mesh <u>NEW</u> Volume added _____ ft³ </p> <p>8. Filter pack material: Manufacturer, product name and mesh <u>CSSI SILICA SAND</u> Volume added _____ ft³ </p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 20 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> Other <input type="checkbox"/> </p> <p>10. Screen material: <u>5CM 80 PVC 4"</u> Screen type: Factory cut <input checked="" type="checkbox"/> Continuous slot <input type="checkbox"/> Other <input type="checkbox"/> Manufacturer <u>MONORLEX</u> Slot size: <u>0.015</u> Slotted length: <u>10.0</u> ft. </p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/></p>
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<p>E. Bentonite seal, top <u>814.4</u> ft. MSL or <u>060.0</u> ft.</p> <p>F. Fine sand, top _____ ft. MSL or _____ ft.</p> <p>G. Filter pack, top <u>809.4</u> ft. MSL or <u>065.5</u> ft.</p> <p>H. Well screen, top <u>800.6</u> ft. MSL or <u>073.8</u> ft.</p> <p>I. Well screen, bottom <u>790.6</u> ft. MSL or <u>083.8</u> ft.</p> <p>J. Filter pack, bottom <u>787.4</u> ft. MSL or <u>087.0</u> ft.</p> <p>K. Borehole, bottom <u>787.4</u> ft. MSL or <u>087.0</u> ft.</p> <p>L. Borehole, diameter <u>09.0</u> in.</p> <p>M. O.D. well casing <u>09.25</u> in.</p> <p>N. I.D. well casing <u>08.75</u> in.</p>	
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

 Signature Rat R. Ruster

 Firm ABB-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BADGER AAP	Grid Location _____ ft <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name BGM-91-03
Facility License, Permit or Monitoring Number _____	Section Location _____ 1/4 of _____ 1/4 of Section _____ T _____ N. R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number _____
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Date Well Installed 11/08/91 m m d d y y	DNR Well Number _____
Distance Well is From Waste/Source Boundary NA ft	Location of Well relative to Waste/Source <input checked="" type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) GABBY RODRIGUEZ LAYNE
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation -863.68 ft. MSL B. Well casing, top elevation -863.56 ft. MSL C. Land surface elevation -861.1 ft. MSL D. Surface seal, bottom _____ ft. MSL or _____ ft.	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe BUCKING POSTS GRAY PAPER
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock 13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/> 15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99 16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____ 17. Source of water (attach analysis): PRODUCTION WELL # 2	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> 4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/> 5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 _____ Lbs/gal mud weight... Bentonite-sand slurry <input type="checkbox"/> 35 _____ Lbs/gal mud weight... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite... Bentonite-cement grout <input checked="" type="checkbox"/> 50 150 Ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03
E. Bentonite seal, top -786.1 ft. MSL or 075.0 ft. F. Fine sand, top _____ ft. MSL or _____ ft. G. Filter pack, top -778.1 ft. MSL or 083.0 ft. H. Well screen, top -771.6 ft. MSL or 089.5 ft. I. Well screen, bottom -761.6 ft. MSL or 099.5 ft. J. Filter pack, bottom -761.1 ft. MSL or 100.0 ft. K. Borehole, bottom -761.1 ft. MSL or 100.0 ft. L. Borehole, diameter 09.0 in. M. O.D. well casing 04.25 in. N. I.D. well casing 03.75 in.	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 BENTONITE POWDER Other <input checked="" type="checkbox"/> 7. Fine sand material: Manufacturer, product name and mesh size NONE Volume added _____ ft ³ 8. Filter pack material: Manufacturer, product name and mesh size CSSE SILICA SANDS # 4 Volume added 20 ft ³ 9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> 10. Screen material: SCN 80 PVC 4" DIAM Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> Manufacturer MONOFLEX Slot size: 0.010 in. Slotted length: 01.0 ft. 11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Roll R. Puro

Firm

ABS-ES

Factory/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PTSP-91-01B
Factory License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well No.
Type of Well Water Table Observation Well <input type="checkbox"/> II Piezometer <input checked="" type="checkbox"/> II	Section Location NE 1/4 of NW 1/4 of Section 23	Date Well installed 10/13/91
Distance Well is from Water/Source Boundary NA ft.	T 10 N. R 6 DE <input type="checkbox"/> W	Well installed By: (Person's Name and firm) G. RODRIGUEZ
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation 850.60 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 850.53 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.6 in. b. Length: 06.6 in. c. Material: Steel <input checked="" type="checkbox"/> 0.4 Other <input type="checkbox"/>
C. Land surface elevation 848.3 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Buckling Posts
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> ____ Lbs/gal mud weight . . . Bentonite-sand slurry ____ Lbs/gal mud weight . . . Bentonite slurry 10 % Bentonite . . . Bentonite-cement grout <input type="checkbox"/> 150 Ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> 0.2 Gravity <input checked="" type="checkbox"/> 0.9
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> BENTONITE POWDER Other <input type="checkbox"/>
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh Volume added _____ ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe N/A	8. Filter pack material: Manufacturer, product name and mesh COLORADO SILICA SAND #4 Volume added 16 ft ³
17. Source of water (attach analysis): PRODUCED WELL #2	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 2.0 Flush threaded PVC schedule 80 <input type="checkbox"/> 2.0 Other <input type="checkbox"/>
E. Bentonite seal, top _____ ft. MSL or _____ ft.	10. Screen material: sch 40 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 1 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	Manufacturer TIMCO Slot size: 0.010 Slot length: 12.9
G. Filter pack, top 724.3 ft. MSL or 124.0 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top 714.3 ft. MSL or 134.0 ft.	
I. Well screen, bottom 704.3 ft. MSL or 144.0 ft.	
J. Filter pack, bottom 704.3 ft. MSL or 144.0 ft.	
K. Borehole, bottom 593.5 ft. MSL or 253.0 ft.	
L. Borehole, diameter 2.0 in.	
M. O.D. well casing 2.25 in.	
N. I.D. well casing 2.10 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Red Renteria

Firm

ABB-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name RADAR AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PBP-91-01C
Factory License, Permit or Monitoring Number		Well Unique Well Number DNV Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> II Piezometer <input checked="" type="checkbox"/> II	Section Location NE 1/4 of NW 1/4 of Section 23	Date Well Installed 10/13/91 m m d d y y
Distance Well Is From Waste/Source Boundary NA ft.	T 10 N. R 6 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) G. R. R. L. L.
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation 850.60 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 850.53 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 ft. c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/>
C. Land surface elevation 848.3 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: BUCKING POSTS
D. Surface seal, bottom 848.3 ft. MSL or 848.3 ft.	3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> Lbs/gal mud weight <input type="checkbox"/> Bentonite sand slurry <input type="checkbox"/> Lbs/gal mud weight <input type="checkbox"/> Bentonite slurry <input type="checkbox"/> % Bentonite <input checked="" type="checkbox"/> Bentonite-cement grout <input type="checkbox"/> 150 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL <input checked="" type="checkbox"/> Other <input type="checkbox"/>	How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> Gravity <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 1/4 in. 3/8 in. 1/2 in. Bentonite pellets <input type="checkbox"/> BENTONITE POWDER <input checked="" type="checkbox"/> Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size Volume added 16 ft ³
Describe PRODUCTION WELL #2	8. Filter pack material: Manufacturer, product name and mesh size COLORADO SILICA SAND #4 Volume added 16 ft ³
1. Source of water (attach analysis): PRODUCTION WELL #2	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 30 <input type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top 688.3 ft. MSL or 160.0 ft.	10. Screen material: SC40 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top 678.3 ft. MSL or 170.0 ft.	Manufacturer TIMECO Slot size: 0.010 in. Slot length: 1.0 ft.
G. Filter pack, top 668.3 ft. MSL or 180.0 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top 658.3 ft. MSL or 190.0 ft.	
I. Well screen, bottom 658.3 ft. MSL or 190.0 ft.	
J. Filter pack, bottom 658.3 ft. MSL or 190.0 ft.	
K. Borehole, bottom 658.3 ft. MSL or 253.0 ft.	
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 01.35 in.	
N. I.D. well casing 01.10 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul R. R. L. L.** From **ABB-ES**

MONITORING WELL CONSTRUCTION

Signature

1999

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PBP-91-023
Facility License, Permit or Monitoring Number		Well Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> II Piezometer <input checked="" type="checkbox"/> II	Section Location NE 1/4 of NW 1/4 of Section 23	Date Well Installed 10/15/91 m m d d y y
Distance Well Is From Waste/Source Boundary NA ft.	T 10 N. R. 6 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) G. RODRIGUEZ
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation 850.10 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 850.09 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.00 b. Length: 06.00 c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/>
C. Land surface elevation 847.6 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: BRICKING POSTS
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 3 10 % Bentonite . . . Bentonite-cement grout <input checked="" type="checkbox"/> 5 150 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input type="checkbox"/> 0 Gravimetric <input checked="" type="checkbox"/> 0
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3 BENTONITE POWDER Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size Volume added _____ ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size COLORADO SILICA SAND Volume added 16 ft ³
17. Source of water (attach analysis): PRODUCTION WELL #2	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top NONE ft. MSL or NONE ft.	10. Screen material: SCH 40 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top NONE ft. MSL or NONE ft.	Manufacturer TIMCO Slot size: 0.010 in. Slotted length: 12.0 ft.
G. Filter pack, top 227.6 ft. MSL or 120.0 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top 717.3 ft. MSL or 130.3 ft.	
I. Well screen, bottom 707.3 ft. MSL or 140.3 ft.	
J. Filter pack, bottom 706.6 ft. MSL or 141.0 ft.	
K. Borehole, bottom 594.1 ft. MSL or 253.5 ft.	
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 01.25 in.	
N. I.D. well casing 01.00 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul R. [Signature]** Firm **ABB-ES**

ABB Environmental Services, Inc.

MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BADGER AAP	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PBP-91-02C
Factory License, Permit or Monitoring Number _____	Section Location NE 1/4 of NW 1/4 of Section 25	Well Unique Well Number _____ DNR Well No. _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Distance Well Is From Waste/Source Boundary NA ft.	Date Well Installed 10/14/91 m m d d y y
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) G. RODRIGUEZ LAYNE

A. Protective pipe, top elevation 850.20 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 850.09 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 b. Length: 06.0 c. Material: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other
C. Land surface elevation 842.6 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: BURNING POSTS
D. Surface seal bottom _____ ft. MSL or _____ ft.	3. Surface seal: <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Concrete <input type="checkbox"/> Other
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <input type="checkbox"/> Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: ____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> ____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 10 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 150 Ft ³ volume added for any of the above How installed: <input type="checkbox"/> Tremie <input type="checkbox"/> Tremie pumped <input checked="" type="checkbox"/> Gravity
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	6. Bentonite seal: <input type="checkbox"/> Bentonite granules <input type="checkbox"/> <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> BENTONITE POWDER Other <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh Volume added _____ ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh Volume added 16 ft ³
Describe _____	9. Well casing: <input checked="" type="checkbox"/> Flush threaded PVC schedule 40 <input type="checkbox"/> Flush threaded PVC schedule 80 <input type="checkbox"/> Other
17. Source of water (attach analysis): PRODUCTION WELL #2	10. Screen material: SCM 40 PVC Screen type: <input checked="" type="checkbox"/> Factory cut <input type="checkbox"/> Continuous slot <input type="checkbox"/> Other
E. Bentonite seal, top 687.6 ft. MSL or 160.0 ft.	Manufacturer TYMCO Slot size: 0.010 Slotted length: 10.0
F. Fine sand, top _____ ft. MSL or _____ ft.	11. Backfill material (below filter pack): <input type="checkbox"/> None <input checked="" type="checkbox"/> Other
G. Filter pack, top 677.6 ft. MSL or 170.0 ft.	
H. Well screen, top 667.3 ft. MSL or 180.3 ft.	
I. Well screen, bottom 657.3 ft. MSL or 190.3 ft.	
J. Filter pack, bottom 657.0 ft. MSL or 190.0 ft.	
K. Borehole, bottom 594.1 ft. MSL or 253.5 ft.	
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 01.35 in.	
N. I.D. well casing 01.10 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Rindland Firm ABS-ES

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. PBM-82-01

DATE 3/18/82

CHIEF: Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Ground

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 100 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
65 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
45 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20 FEET.
- 5 TOTAL LENGTH OF PIPE 82.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET..
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:1 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 35 FEET.
- 12 DEPTH TO FIRST COUPLING 3 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 100 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBM-82-01	5/11/82	-	83.65'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

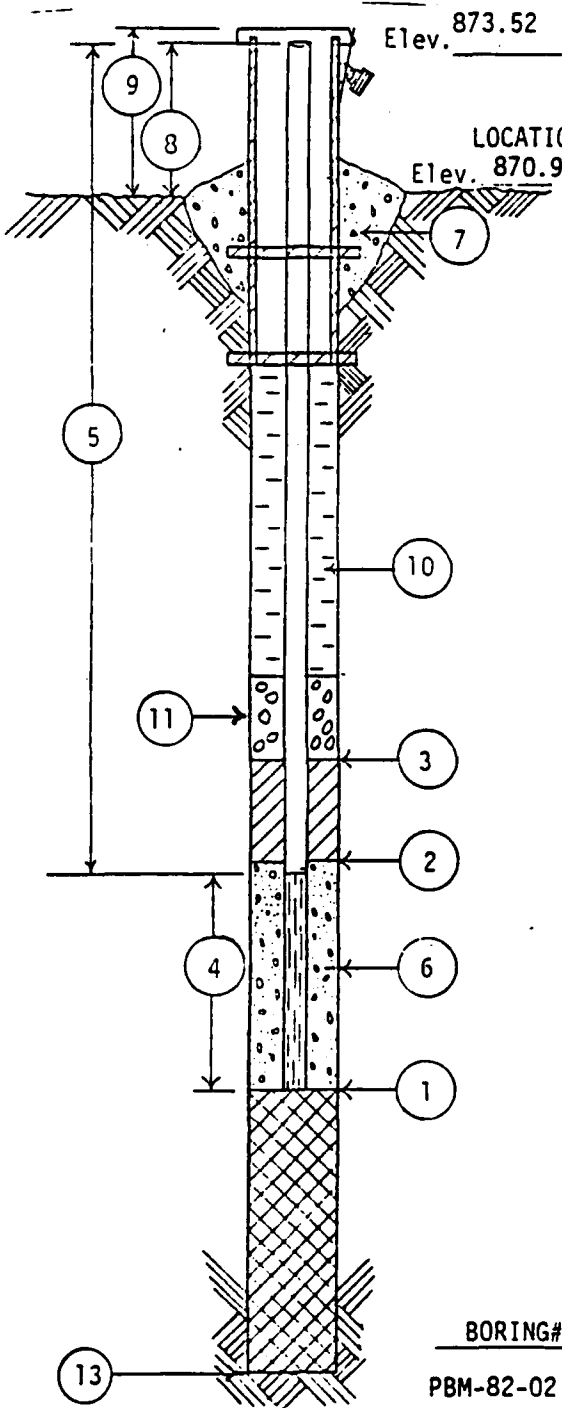
BORING NO. PBM-82-02

DATE 3/17/82

CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 114.8 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 87 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 67 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20 FEET.
- 5 TOTAL LENGTH OF PIPE 97.3 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 6:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 27.8 FEET.
- 12 DEPTH TO FIRST COUPLING 7.55 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 114.8 FEET.

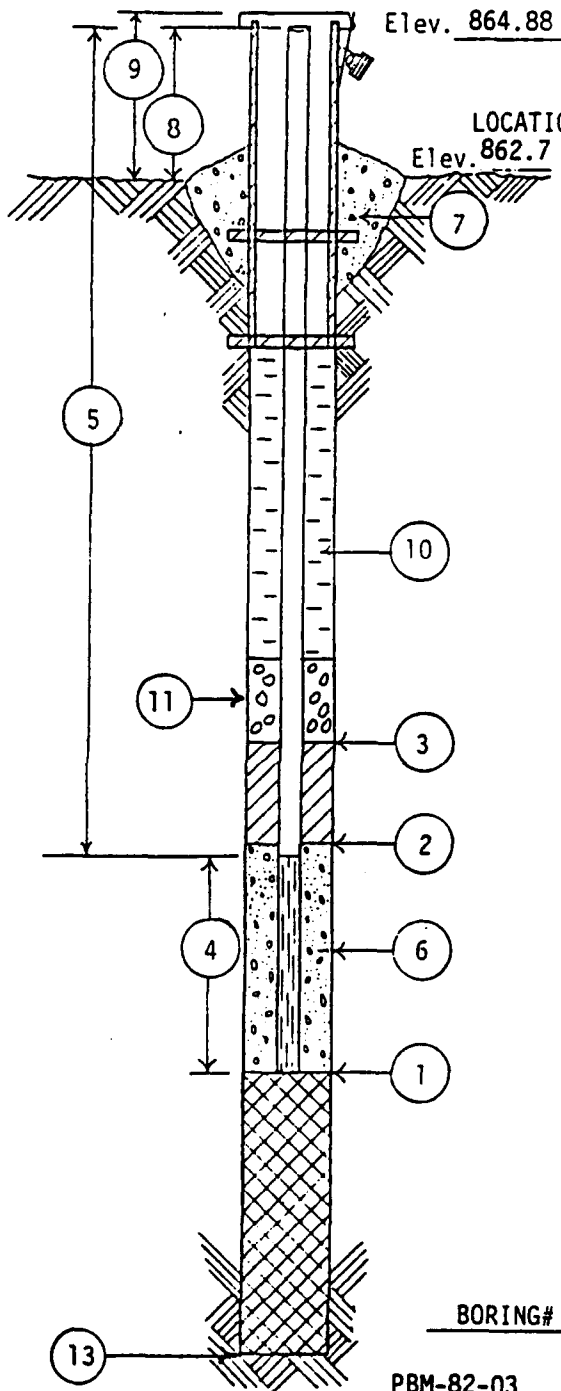
BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBM-82-02	5/11/82	-	99.40'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313
 BORING NO. PBM-82-03
 DATE 3/16/82
 CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Ground

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 107.25 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 77 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 55 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20 FEET.
- 5 TOTAL LENGTH OF PIPE 89.75 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.5
 LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 4:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 30 FEET.
- 12 DEPTH TO FIRST COUPLING 0 FEET.
 COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 107.25 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBM-82-03	5/11/82	-	91.70	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

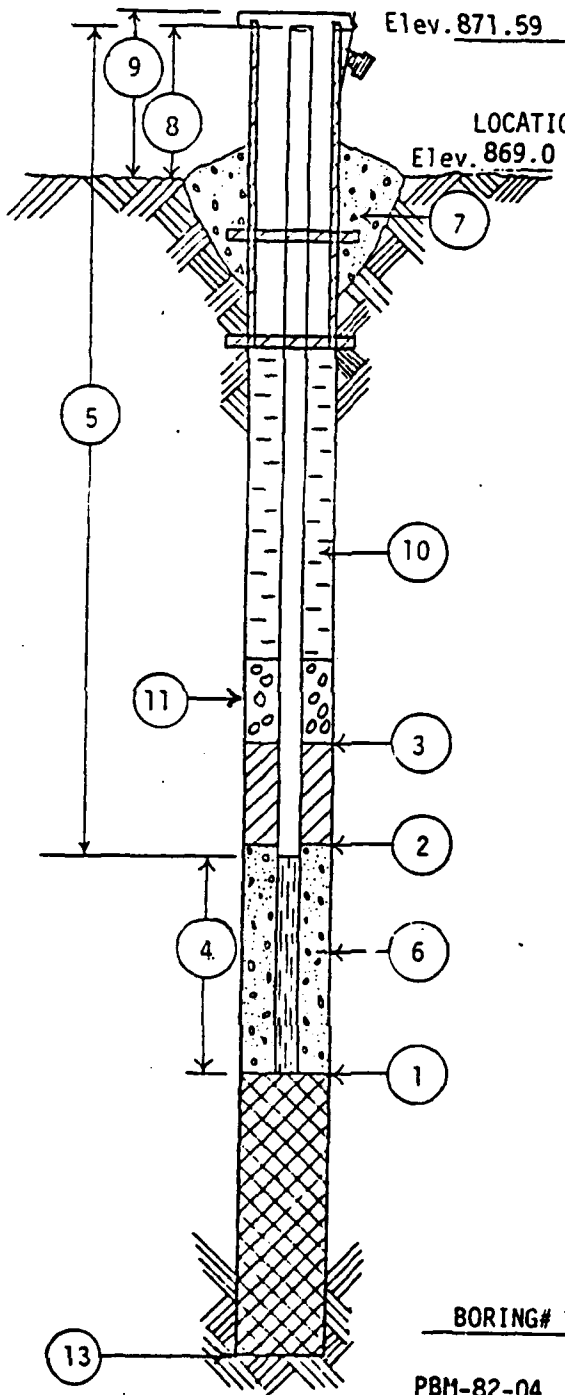
BORING NO. PBM-82-04

DATE 3/17/82

CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 113 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
82 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
58 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20 FEET.
- 5 TOTAL LENGTH OF PIPE 95.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 4:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 31 FEET.
- 12 DEPTH TO FIRST COUPLING 5.75 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 113 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBM-82-04	5/11/82	-	98.63'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

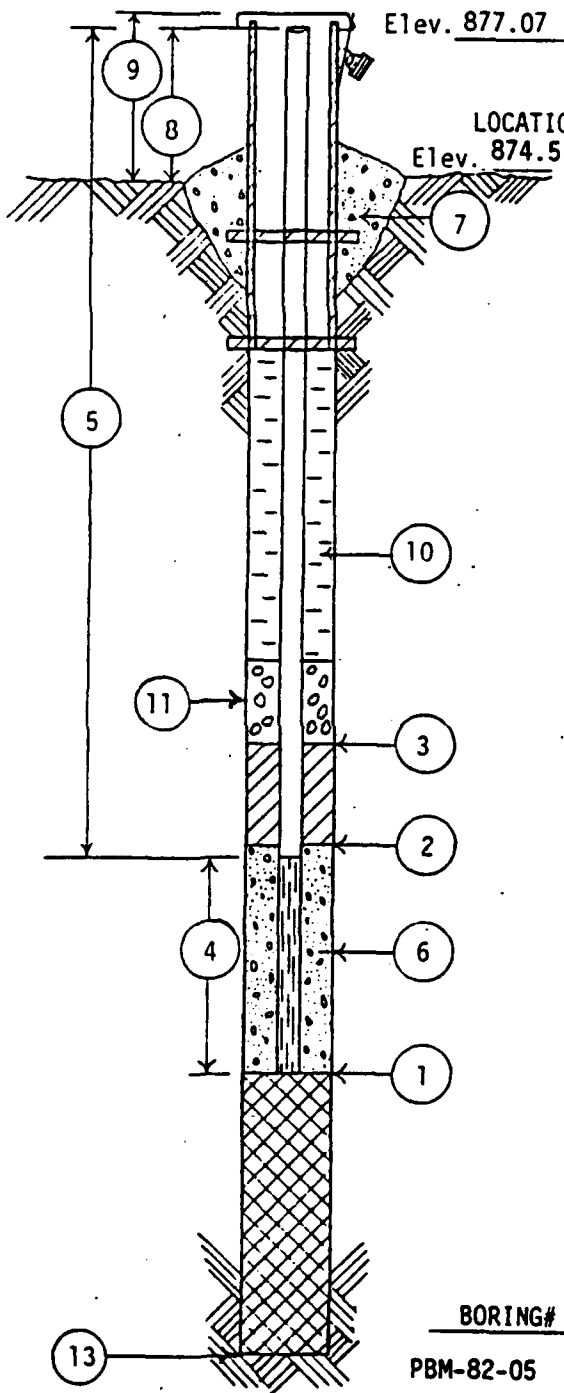
BORING NO. PBM-82-05

DATE 5/3/82

CHIEF _____ Tom O.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

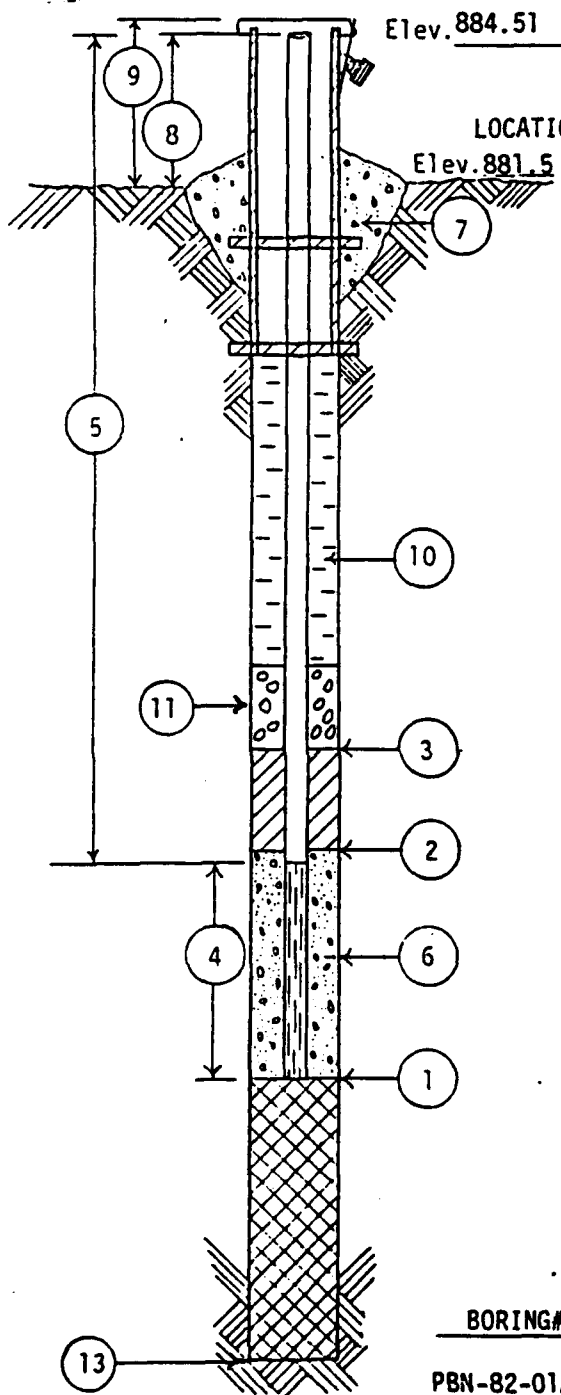
All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 121.25 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
85 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
65 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20 FEET.
- 5 TOTAL LENGTH OF PIPE 103.75 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:2 Cement:Bentonite
- 11 THICKNESS OF GRAVEL PACK 36.25 FEET.
- 12 DEPTH TO FIRST COUPLING 5.5 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 121.25 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBM-82-05	5/11/82	-	104.14'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313BORING NO. PBN-82-01ADATE 3/18/82CHIEF LFLOCATION Badger Army Ammunition Plant; Propellant Burning GroundAll depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 115.25 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 93 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 73 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 10 FEET.
- 5 TOTAL LENGTH OF PIPE 107.75 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:1 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 22.25 FEET.
- 12 DEPTH TO FIRST COUPLING 8.0 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 115.25 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-01A	5/11/82	-	109.51'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. PBN-82-01B

DATE 3/10/82

CHIEF LF _____

LOCATION Badger Army Ammunition Plant: Propellant Burning Ground

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 129 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
111.5 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
82 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
2 FEET.
- 5 TOTAL LENGTH OF PIPE 129.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 17.5 FEET.
- 12 DEPTH TO FIRST COUPLING 0 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 129 FEET.

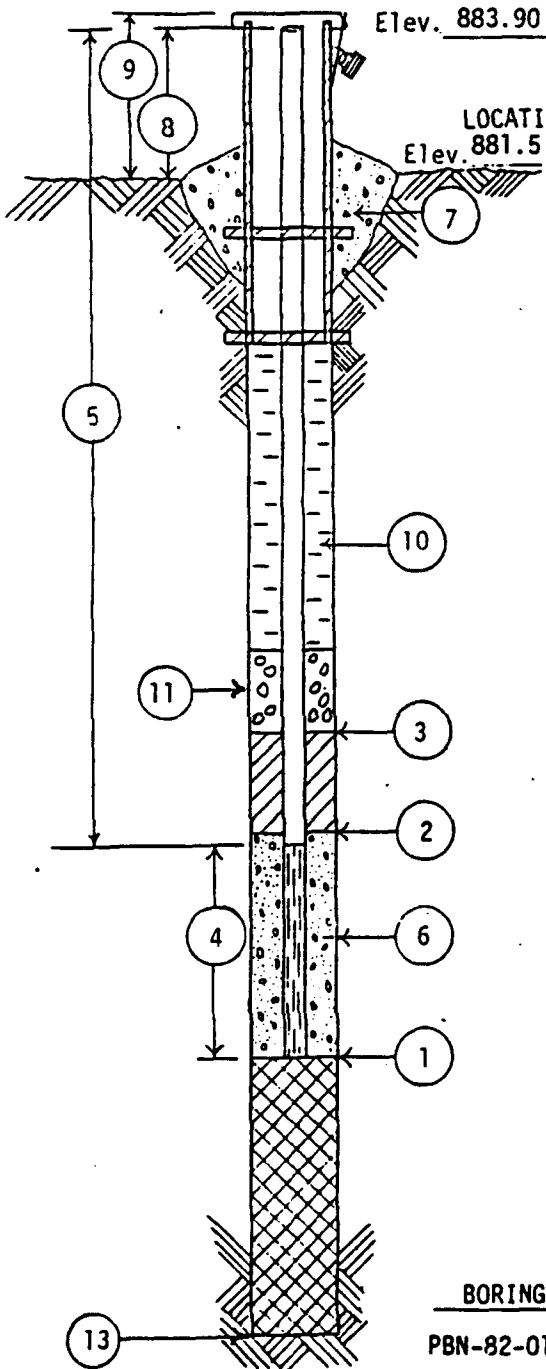
BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
-82-01B	5/11/82	-	108.67'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313
 BORING NO. PBN-82-01C
 DATE 3/10/82
 CHIEF LF

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 138.5 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 106 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 68 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 2 FEET.
- ⑤ TOTAL LENGTH OF PIPE 139 FEET @ 4 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.5
 LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: 8:3 Cement; Bentonite
- ⑪ THICKNESS OF GRAVEL PACK 32.5 FEET.
- ⑫ DEPTH TO FIRST COUPLING 0 FEET.
 COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 138.5 FEET.

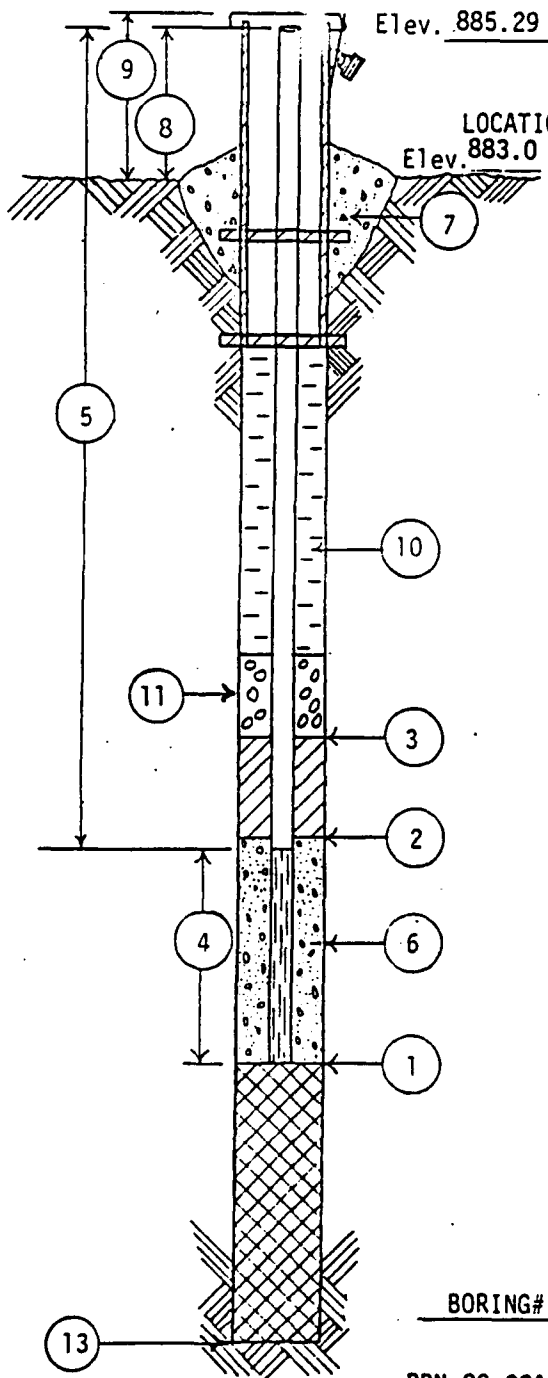
BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-01C	5/11/82	-	108.88'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313
 BORING NO. PBN-82-02A
 DATE 5/1/82
 CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 116 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 97 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 77 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 10 FEET.
- 5 TOTAL LENGTH OF PIPE 108.50 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.5
 LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:2 Cement:Bentonite
- 11 THICKNESS OF GRAVEL PACK 19 FEET.
- 12 DEPTH TO FIRST COUPLING 8.75 FEET.
 COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 116 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-02A	5/11/82	-	111.11'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

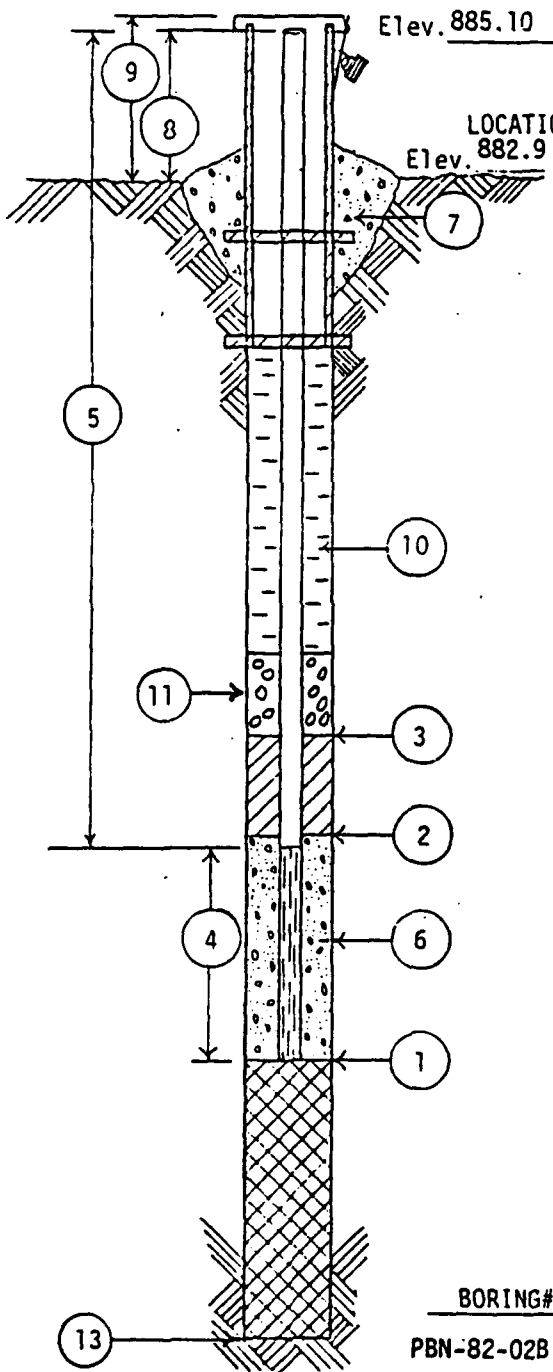
BORING NO. PBN-82-028

DATE 3/9/82

CHIEF LF

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

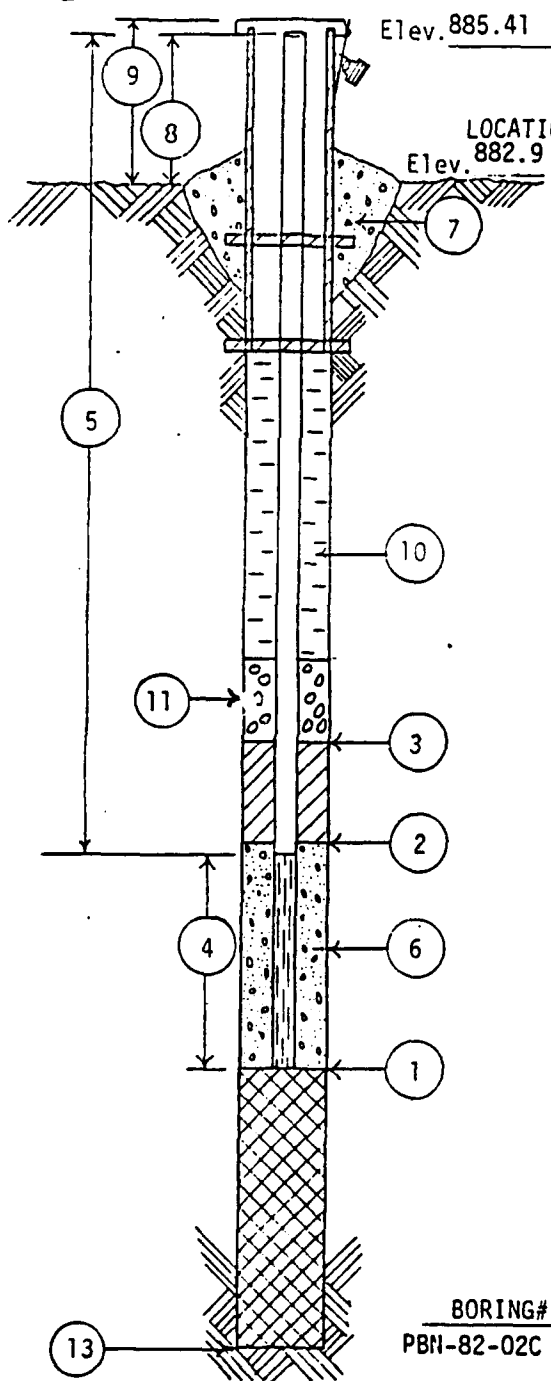
All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 129.5 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
118 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
80 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
2 FEET.
- 5 TOTAL LENGTH OF PIPE 130 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:1 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 11.5 FEET.
- 12 DEPTH TO FIRST COUPLING .75 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 129.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-02B	5/11/82	-	110.78'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313BORING NO. PBN-82-02CDATE 3/8/82CHIEF Larry F.LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 138.7 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 128.5 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 108 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 2 FEET.
- ⑤ TOTAL LENGTH OF PIPE 139.2 FEET @ 4 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: 7:1 Cement: Bentonite
- ⑪ THICKNESS OF GRAVEL PACK 10.2 FEET.
- ⑫ DEPTH TO FIRST COUPLING 1.75 FEET.
COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 138.7 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-02C	5/11/82	-	111.18'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

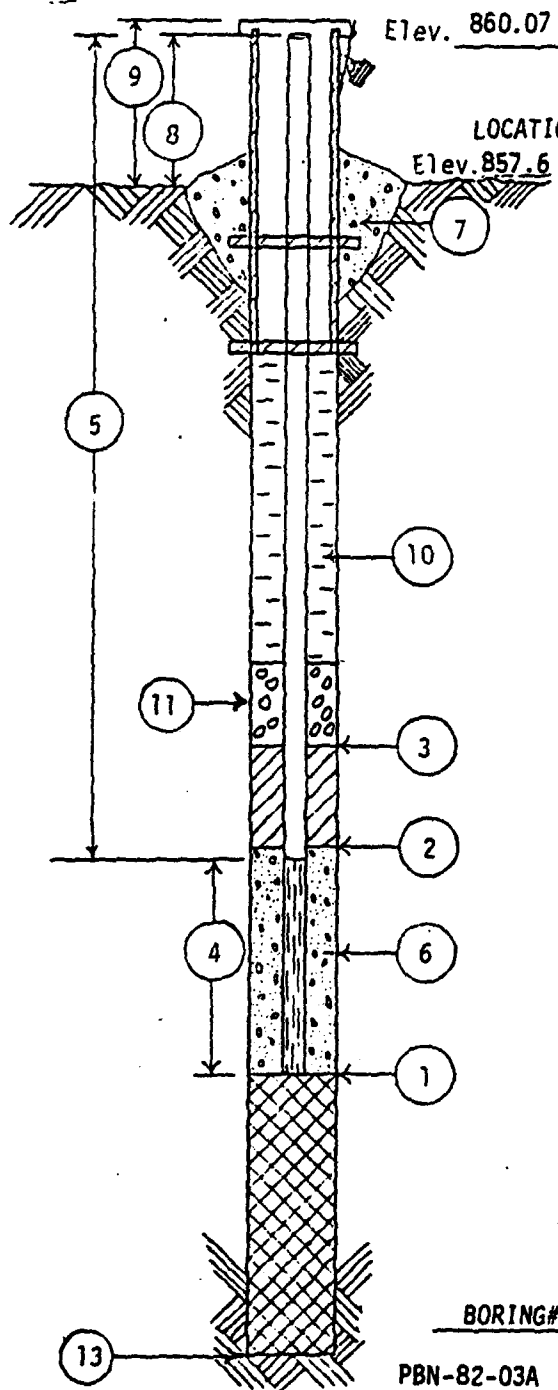
BORING NO. PBN-82-03A

DATE 3/15/82

CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 94 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
78 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
58 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
10 FEET.
- 5 TOTAL LENGTH OF PIPE 86.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5.
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 4:1 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 16 FEET.
- 12 DEPTH TO FIRST COUPLING 5.95 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 94 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-03A	5/11/82	-	87.48'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

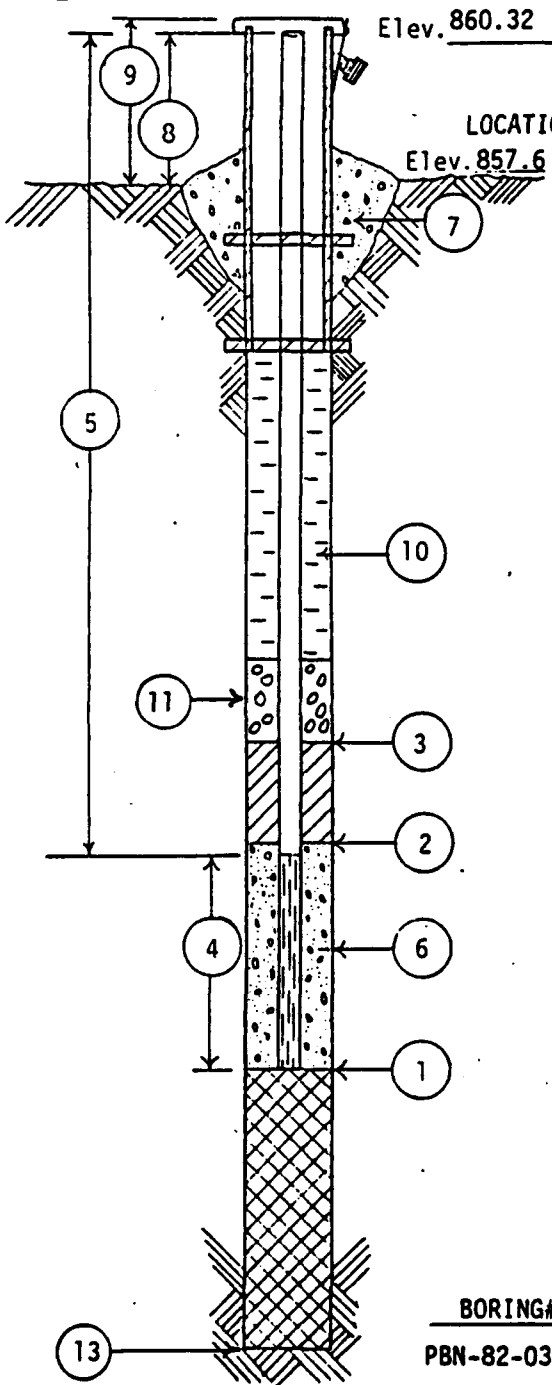
BORING NO. PBN-82-03B

DATE 3/15/82

CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

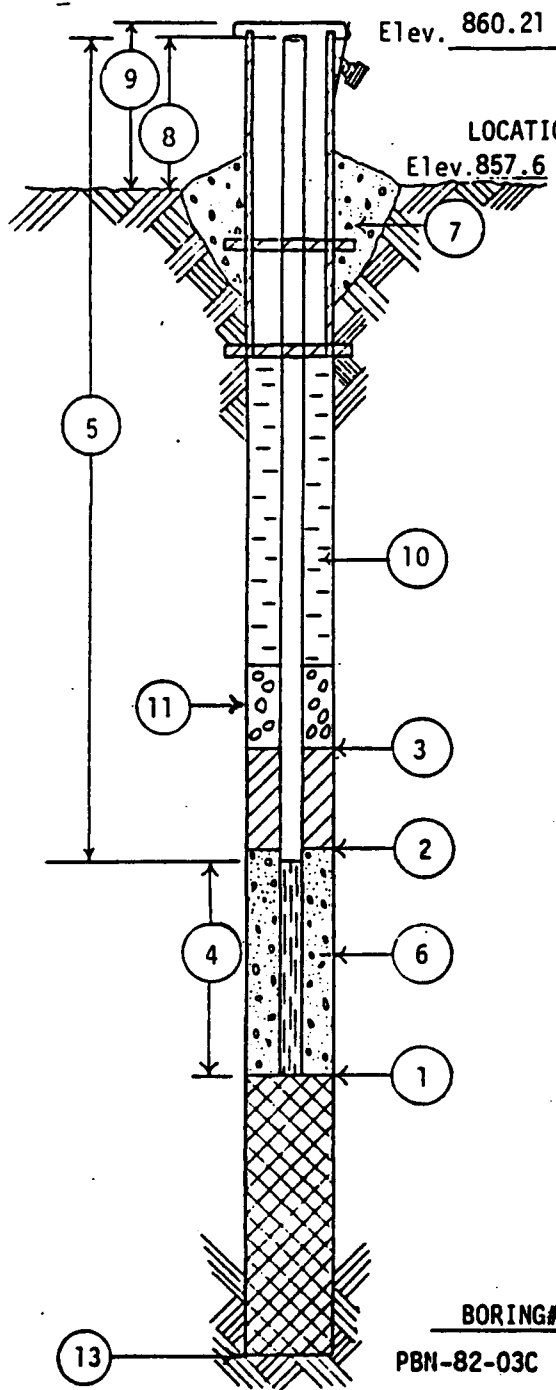
All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 106 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 85 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 65 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 2 FEET.
- ⑤ TOTAL LENGTH OF PIPE 106.5 FEET @ 4 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: 4:2 Cement: Bentonite
- ⑪ THICKNESS OF GRAVEL PACK 21 FEET.
- ⑫ DEPTH TO FIRST COUPLING 6.35 FEET.
COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 106 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-03B	5/11/82	-	87.73'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313BORING NO. PBN-82-03CDATE 3/15/82CHIEF Larry F.LOCATION Badger Army Ammunition Plant; Propellant Burning GroundsAll depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 115 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 101 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 75 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 2 FEET.
- ⑤ TOTAL LENGTH OF PIPE 115.5 FEET @ 4 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: 5:2 Cement: Bentonite
- ⑪ THICKNESS OF GRAVEL PACK 14 FEET.
- ⑫ DEPTH TO FIRST COUPLING 5.75 FEET.
COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 115 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-03C	5/11/82	-	87.62'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. PBN-82-04A

DATE 3/12/82

CHIEF · Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 106 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
90 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
65 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
10 FEET.
- 5 TOTAL LENGTH OF PIPE 98.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement: Bentonite 5:2
- 11 THICKNESS OF GRAVEL PACK 16 FEET.
- 12 DEPTH TO FIRST COUPLING 8.25 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 106 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-04A	5/11/82	-	102.78	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. PBN-82-04B

DATE 3/13/82

CHIEF LF

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

Elev. 873.0

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

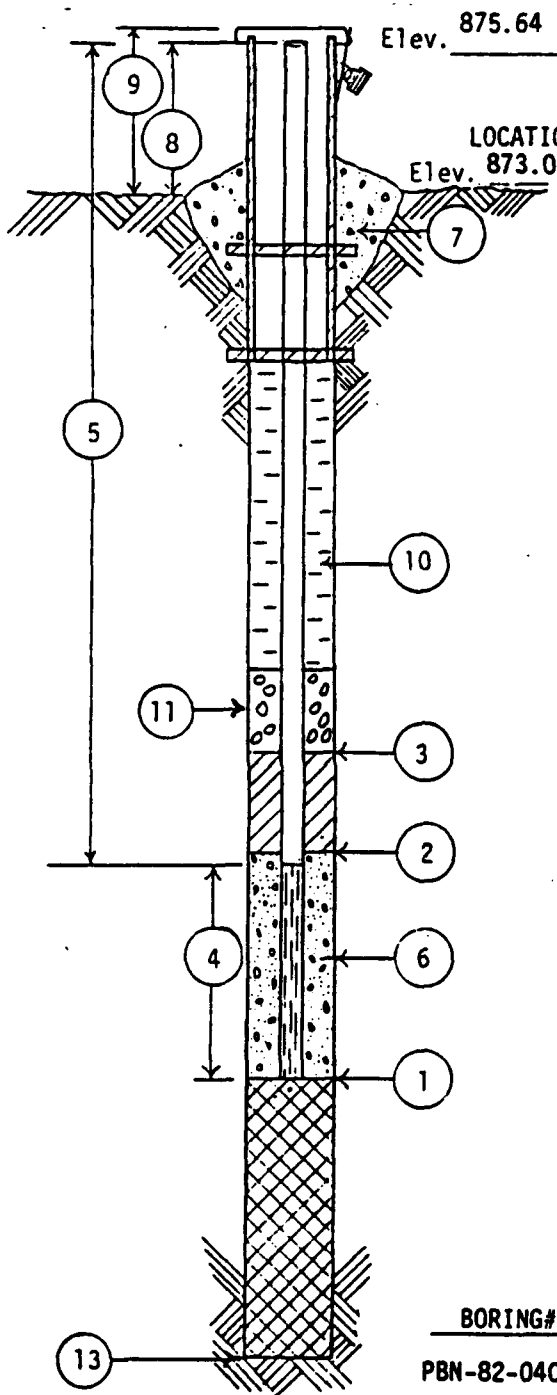
- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 118 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
104 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
79 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
2 FEET.
- 5 TOTAL LENGTH OF PIPE 118.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite & Cement Grout 1:5
- 11 THICKNESS OF GRAVEL PACK 14 FEET.
- 12 DEPTH TO FIRST COUPLING 1.0 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 118 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-04B	5/11/82	-	102.61'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313BORING NO. PBN-82-04CDATE 3/12/82CHIEF Larry F.LOCATION Badger Army Ammunition Plant; Propellant Burning Ground

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



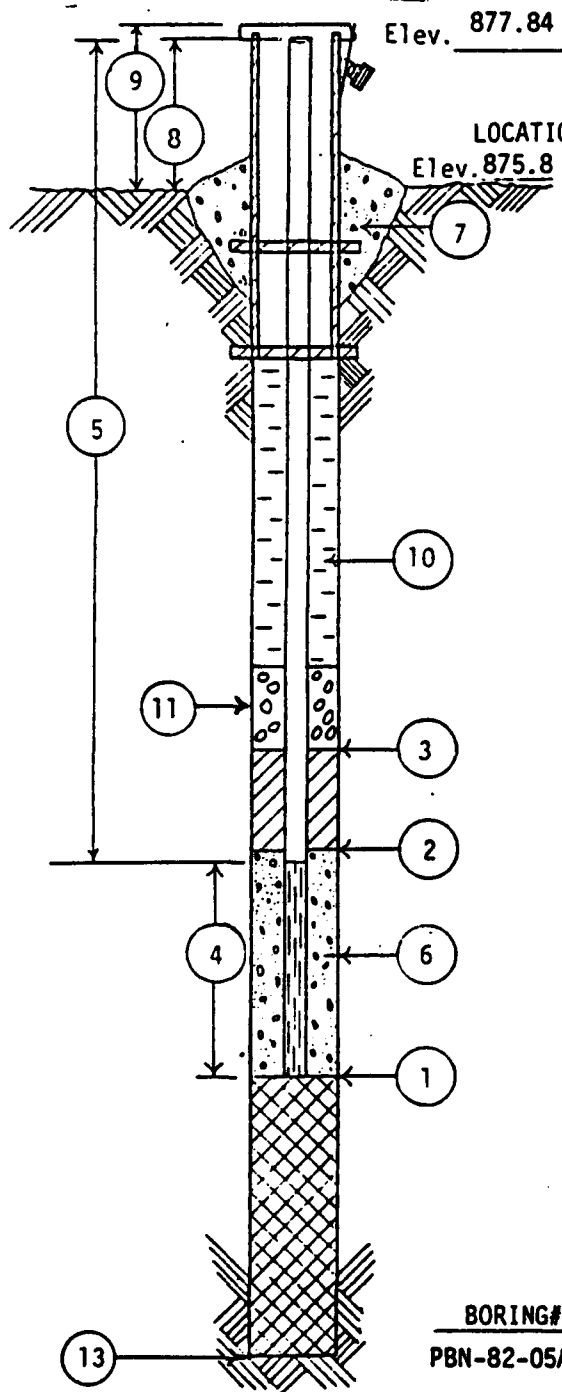
- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 129.0 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 110 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 80 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 2.0 FEET.
- ⑤ TOTAL LENGTH OF PIPE 129.5 FEET @ 4 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: 5:2 Cement: Bentonite
- ⑪ THICKNESS OF GRAVEL PACK 19 FEET.
- ⑫ DEPTH TO FIRST COUPLING 0.25 FEET.
COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 129.0 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-04C	5/11/82	-	103.52'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313BORING NO. PBN-82-05ADATE 3/13/82CHIEF LFLOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 110 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 100 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 80 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 10 FEET.
- ⑤ TOTAL LENGTH OF PIPE 102.5 FEET @ 4 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: 5:1 Cement Bentonite Grout
- ⑪ THICKNESS OF GRAVEL PACK 10 FEET.
- ⑫ DEPTH TO FIRST COUPLING 4 FEET.
COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 110 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-05A	5/11/82	-	105.98	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

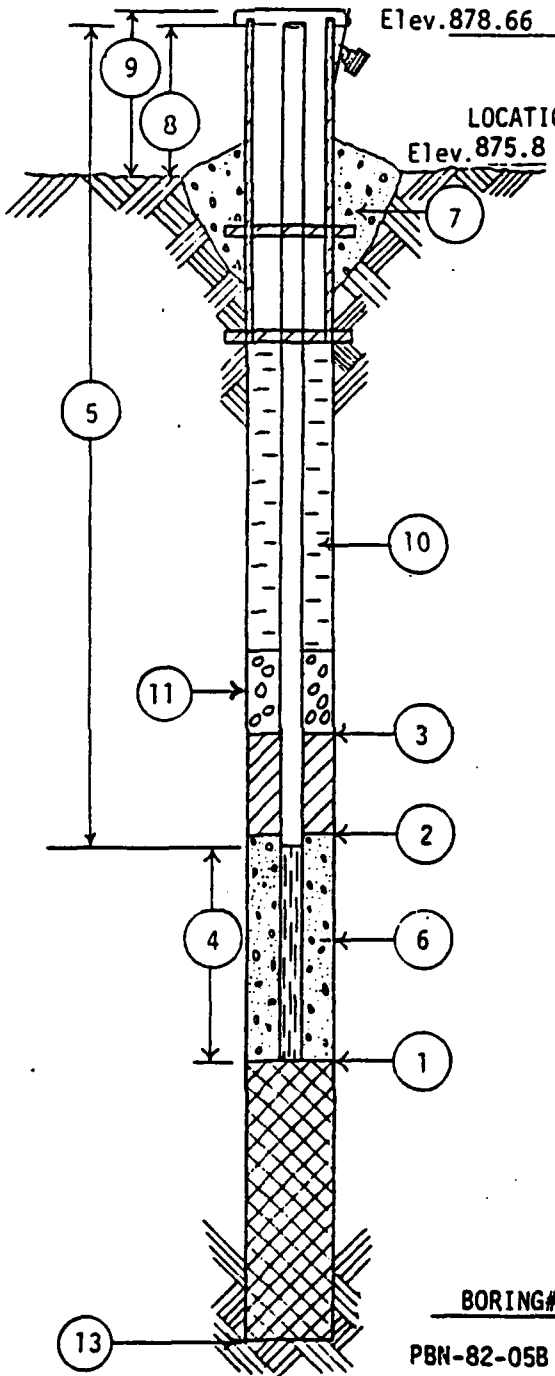
BORING NO. PBN-82-05B

DATE 3/11/82

CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Ground

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 121.75 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 102 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 80 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 2.0 FEET.
- 5 TOTAL LENGTH OF PIPE 122.25 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 19.75 FEET.
- 12 DEPTH TO FIRST COUPLING 2.75 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 121.75 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-05B	5/11/82	-	105.19'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. PBN-82-05C

DATE 3/11/82

CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Propellant Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 131 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
122 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
90 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
2.0 FEET.
- 5 TOTAL LENGTH OF PIPE 131.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5.
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 7:4 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 9 FEET.
- 12 DEPTH TO FIRST COUPLING 1.5 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 131 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
PBN-82-05C	5/11/82	-	105.64'	From top of casing

MONITORING WELL CONSTRUCTION FOR:

Factory/Project Name BADGER AAP		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name LOM-91-01	
Factory License, Permit or Monitoring Number _____				Wis. Unique Well Number _____ DNR Well Number _____	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location SE 1/4 of SW 1/4 of Section 11 T 10 N. R. G <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Date Well Installed 10 / 10 / 19 1 m m d d y y		
Distance Well Is From Water Source Boundary NA ft.	Location of Well relative to Water Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input checked="" type="checkbox"/> Not Known		Well Installed By: (Person's Name and firm) G. RODRIGUEZ LAYNE		
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

A. Protective pipe, top elevation -912.22 ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation -912.51 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation -915.5 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: BERING POSTS
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 10 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 150 Ft ³ volume added for any of the above
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 NO BENTONITE POWDER Other <input type="checkbox"/>
17. Source of water (attach analysis): PRODUCTION PUMP 2	7. Fine sand material: Manufacturer, product name and mesh size NONE Volume added _____ ft ³
E. Bentonite seal, top -790.5 ft. MSL or 125.0 ft.	8. Filter pack material: Manufacturer, product name and mesh size COLORADO SILICA SAND Volume added 20 ft ³
F. Fine sand, top N/A ft. MSL or _____ ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
G. Filter pack, top -783.5 ft. MSL or 132.0 ft.	10. Screen material: PVC SCH 80 Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
H. Well screen, top -225.8 ft. MSL or 159.7 ft.	Manufacturer MONOFLEX Slot size: 0.010 in. Slotted length: 06.0 ft.
I. Well screen, bottom -265.8 ft. MSL or 149.7 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
J. Filter pack, bottom -264.5 ft. MSL or 151.0 ft.	
K. Borehole, bottom -264.5 ft. MSL or 151.0 ft.	
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 04.00 in.	
N. I.D. well casing 3.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Ted R. Kunkin** Firm **AJTB-ES**

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name Badger AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name LOM-91-02
Facility License, Permit or Monitoring Number		Well Unique Well Number Link Well No
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 1 Piezometer <input type="checkbox"/> 2	Section Location SE 1/4 of SW 1/4 of Section 11	Date Well Installed 10/25/91 m m d d v v
Distance Well Is From Waste/Source Boundary N/A ft.	T 10 N R 6 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well installed By: (Person's Name and firm) G Rodriguez
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input checked="" type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation 912.14 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 912.30 ft. MSL	2. Protective cover pipe: a. Inside diameter: 26.5 b. Length: 26.5 c. Material: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other
C. Land surface elevation 910.3 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: 2 BURNING POSTS
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: <input checked="" type="checkbox"/> Bentonite <input type="checkbox"/> Concrete <input type="checkbox"/> Other
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <input type="checkbox"/> Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <input checked="" type="checkbox"/> Granular Bentonite <input type="checkbox"/> Other
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	Lbs/gal mud weight _____ Bentonite-sand slurry Lbs/gal mud weight _____ Bentonite slurry 10 % Bentonite _____ Bentonite-cement grout 250 Ft ³ volume added for any of the above
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	How installed: <input type="checkbox"/> Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> Gravity <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Bentonite seal: <input type="checkbox"/> Bentonite granules <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> Other
Describe _____	7. Fine sand material: Manufacturer, product name and mesh None
17. Source of water (attach analysis): Production Well # 2	Volume added _____ ft ³
E. Bentonite seal, top 786.8 ft. MSL or 123.5 ft.	8. Filter pack material: Manufacturer, product name and mesh size CSSI 50/100 SAND # 4
F. Fine sand, top _____ ft. MSL or _____ ft.	Volume added 20 ft ³
G. Filter pack, top 781.3 ft. MSL or 129.0 ft.	9. Well casing: <input type="checkbox"/> Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> Flush threaded PVC schedule 30 <input type="checkbox"/> Other
H. Well screen, top 773.9 ft. MSL or 136.4 ft.	10. Screen material: sch 80 PVC 4" DIA
I. Well screen, bottom 763.9 ft. MSL or 146.4 ft.	Screen type: <input checked="" type="checkbox"/> Factory cut <input type="checkbox"/> Continuous slot <input type="checkbox"/> Other
J. Filter pack, bottom 762.3 ft. MSL or 148.0 ft.	Manufacturer MONOFLEX
K. Borehole, bottom 762.3 ft. MSL or 148.0 ft.	Slot size: 0.075
L. Borehole, diameter 09.0 in.	Slot length: 10.0
M. O.D. well casing 04.25 in.	11. Backfill material (below filter pack): <input type="checkbox"/> None <input checked="" type="checkbox"/> Other
N. I.D. well casing 02.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul R. Rustad** Firm **ABIS-ES**

Facility/Project Name <u>Red Deer Army Ammunition Plant</u>	Grid Location <u>4,803,093.4</u> <u>277,471.9</u>	Well Name <u>LOM-89-01</u>
Facility License, Permit or Monitoring Number	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/12/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave H. Bekun / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>918.18</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>912.86</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6</u> in. b. Length: <u>2</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> --
C. Land surface elevation <u>915.9</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing parts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> --
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> -- Other <input checked="" type="checkbox"/> --
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 550 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Drill Well</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/> --
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u> </u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Fish Silver Filter Sand</u> Volume added <u>3.3</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> --
E. Bentonite seal, top <u>791.9</u> ft. MSL or <u>124.0</u> ft.	10. Screen material: <u>Schedule 80 pipe</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> --
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Tiemo</u> Slot size: <u>0.010</u> in. Slotted length: <u>20</u> ft.
G. Filter pack, top <u>786.9</u> ft. MSL or <u>129.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>777.4</u> ft. MSL or <u>138.5</u> ft.	
I. Well screen, bottom <u>752.4</u> ft. MSL or <u>158.5</u> ft.	
J. Filter pack, bottom <u>752.4</u> ft. MSL or <u>158.5</u> ft.	
K. Borehole, bottom <u>752.4</u> ft. MSL or <u>158.5</u> ft.	
L. Borehole, diameter <u>2.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul J. Bl Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Budget Army Ammunition Plant</u>	Grid Location <u>4802, 958.1</u>	Well Name <u>LON-89-024</u>
Facility License, Permit or Monitoring Number <u>277, 468.6</u>	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number <u>02119189</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location <u>1/4 of 1/4 of Section</u>	Date Well Installed <u>02/19/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave H. Belkin / E.C. Jordan Co</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>920.74</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>920.59</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.6</u> in. b. Length: <u>2.0</u> ft. c. Material: <u>Steel</u> <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> <u> </u>
C. Land surface elevation <u>918.5</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: <u>Grout</u> Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/> <u> </u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u> </u> Other <input checked="" type="checkbox"/> <u>Grout</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <u>Grout</u> Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight <u> </u> Bentonite-sand slurry <u> </u> Lbs/gal mud weight <u> </u> Bentonite slurry <u> </u> <u>5</u> % Bentonite <u> </u> Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>760</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well</u> Other <input checked="" type="checkbox"/> <u> </u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: <u> </u> <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/> <u> </u>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u> </u>	8. Filter pack material: <u>Red Clay, Silica Filter Sand</u> Volume added <u>2.9</u> ft ³
17. Source of wt or (attach analysis): <u>PW #2</u>	9. Well casing: <u> </u> Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> <u> </u>
E. Bentonite seal, top <u>792.5</u> ft. MSL or <u>126.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: <u> </u> Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> <u> </u>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Timo</u> Slot size: <u> </u> in. Slotted length: <u> </u> ft.
G. Filter pack, top <u>785.2</u> ft. MSL or <u>132.5</u> ft.	11. Backfill material (below filter pack): <u>NA</u> None <input type="checkbox"/> <u> </u> Other <input type="checkbox"/> <u> </u>
H. Well screen, top <u>779.5</u> ft. MSL or <u>139.0</u> ft.	
I. Well screen, bottom <u>759.5</u> ft. MSL or <u>159.0</u> ft.	
J. Filter pack, bottom <u>759.5</u> ft. MSL or <u>159.0</u> ft.	
K. Borehole, bottom <u>758.5</u> ft. MSL or <u>160.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P.J.P. Belkin Firm E.C. Jordan Co

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Facility/Project Name <u>Bodges Army Ammunition Plant</u>	Grid Location <u>4,802,960.5</u> <u>277,477.6</u>	Well Name <u>LOW-89-02B</u>
Facility License, Permit or Monitoring Number	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/18/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave H. Belan / E. C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>921.26</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>921.13</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> --
C. Land surface elevation <u>918.9</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> --
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> -- Other <input checked="" type="checkbox"/> --
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± <u>700</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Dug Well</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/> --
16. Drilling additives used? <input type="checkbox"/> Yes <input type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat, Sides Filter Sand</u> Volume added <u>± 1.7</u> ft ³
17. Source of water (attach analysis):	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> --
E. Bentonite seal, top <u>741.4</u> ft. MSL or <u>177.5</u> ft.	10. Screen material: <u>Schedule 60 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> --
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Timco</u> Slot size: <u>0.019</u> in. Slotted length: <u>5.0</u> ft.
G. Filter pack, top <u>736.4</u> ft. MSL or <u>182.5</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Other</u> <input checked="" type="checkbox"/>
H. Well screen, top <u>725.9</u> ft. MSL or <u>193.0</u> ft.	
I. Well screen, bottom <u>720.9</u> ft. MSL or <u>198.0</u> ft.	
J. Filter pack, bottom <u>720.9</u> ft. MSL or <u>198.0</u> ft.	
K. Borehole, bottom <u>718.9</u> ft. MSL or <u>200.0</u> ft.	
L. Borehole, diameter <u>2.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P. L. Belan Firm E. C. Jordan Co.

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Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4 F02, 959.3</u> <u>277, 521.8</u>	Well Name <u>LON-89-03A</u>
Facility License, Permit or Monitoring Number	<u>NA</u>	Wis. Unique Well Number DNR Well Num-
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/20/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N, R <u>NA</u> E, W <u>NA</u>	Well Installed By: (Person's Name and Firm) <u>Dave H. Belan / E. C. Jordan Co</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>922.29</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>922.14</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 0- Other <input type="checkbox"/>
C. Land surface elevation <u>919.2</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 * <u>700</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Deal Well</u> Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Filter Sand</u> Volume added <u>2.8</u> ft ³
Describe <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>Schedule 90 4x</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>922.7</u> ft. MSL or <u>126.5</u> ft.	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slotted length: <u>20.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> <u>Native sand</u> Other <input type="checkbox"/>
G. Filter pack, top <u>986.7</u> ft. MSL or <u>133.0</u> ft.	
H. Well screen, top <u>981.2</u> ft. MSL or <u>138.0</u> ft.	
I. Well screen, bottom <u>961.2</u> ft. MSL or <u>158.0</u> ft.	
J. Filter pack, bottom <u>961.2</u> ft. MSL or <u>158.0</u> ft.	
K. Borehole, bottom <u>959.3</u> ft. MSL or <u>160.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E. C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>B. J. Army Ammunition Plant</u>	Grid Location <u>4802, 959.1</u> M <input checked="" type="checkbox"/> N <input type="checkbox"/> S <u>277, 510.9</u> M <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Name <u>LON-89-03B</u>
Facility License, Permit or Monitoring Number _____	_____	Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location _____ 1/4 of _____ 1/4 of Section _____ T _____ N, R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed <u>02/20/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>David A. Beck / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>922.19</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>921.99</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: <input type="checkbox"/> Steel <input checked="" type="checkbox"/> 04 <input type="checkbox"/> Other _____
C. Land surface elevation <u>919.5</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking packs</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: <u>Grout</u> <input type="checkbox"/> Bentonite <input type="checkbox"/> 30 <input type="checkbox"/> Concrete <input type="checkbox"/> 01 <input type="checkbox"/> Other <input checked="" type="checkbox"/> --
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <u>Grout</u> <input type="checkbox"/> Bentonite <input type="checkbox"/> 30 <input type="checkbox"/> Annular space seal <input type="checkbox"/> -- <input type="checkbox"/> Other <input checked="" type="checkbox"/> --
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <u>Grout</u> <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> 33 <input type="checkbox"/> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <input type="checkbox"/> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>200</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Wall</u> Other <input checked="" type="checkbox"/> --	How installed: <input type="checkbox"/> Tremie <input type="checkbox"/> 01 <input checked="" type="checkbox"/> Tremie pumped <input type="checkbox"/> 02 <input type="checkbox"/> Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: <u>Grout</u> <input type="checkbox"/> Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <input type="checkbox"/> Other <input type="checkbox"/> --
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: <u>NA</u> Volume added <u>NA</u> ft ³
Describe _____	8. Filter pack material: <u>Red Flint Silica Filter Sand</u> Volume added <u>2.4</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: <input type="checkbox"/> Flush threaded PVC schedule 40 <input type="checkbox"/> 23 <input checked="" type="checkbox"/> Flush threaded PVC schedule 80 <input type="checkbox"/> 24 <input type="checkbox"/> Other <input type="checkbox"/> --
E. Bentonite seal, top <u>948.5</u> ft. MSL or <u>171.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: <input type="checkbox"/> Factory cut <input checked="" type="checkbox"/> 11 <input type="checkbox"/> Continuous slot <input type="checkbox"/> 01 <input type="checkbox"/> Other <input type="checkbox"/> --
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Tiemo</u> Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft.
G. Filter pack, top <u>943.5</u> ft. MSL or <u>176.0</u> ft.	11. Backfill material (below filter pack): <u>Grout</u> <input type="checkbox"/> None <input checked="" type="checkbox"/> Other <input type="checkbox"/> --
H. Well screen, top <u>926.5</u> ft. MSL or <u>193.0</u> ft.	
I. Well screen, bottom <u>921.5</u> ft. MSL or <u>198.0</u> ft.	
J. Filter pack, bottom <u>921.5</u> ft. MSL or <u>198.0</u> ft.	
K. Borehole, bottom <u>919.5</u> ft. MSL or <u>200.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co

Facility/Project Name <u>BADLER AAP</u>		Grid Location _____ ft <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>SPN-91-02B</u>	
Facility License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed <u>10/09/91</u> m m d d y y	
Type of Well <input checked="" type="checkbox"/> Water Table Observation Well <input type="checkbox"/> Piezometer <input checked="" type="checkbox"/>		Distance Well is from Waste/Source Boundary <u>NA</u> ft		Well installed by: (Person's Name and Firm) <u>C. RODRIGUEZ</u>	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		LAYNE	

<p>A. Protective pipe, top elevation <u>-824.12</u> ft MSL</p> <p>B. Well casing, top elevation <u>-824.03</u> ft MSL</p> <p>C. Land surface elevation <u>-821.6</u> ft MSL</p> <p>D. Surface seal, bottom _____ ft MSL or _____ ft</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:</p> <p><input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP</p> <p><input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH</p> <p><input type="checkbox"/> Bedrock</p> </div> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>DUAL WALL</u> Other <input checked="" type="checkbox"/> _____</p> <p>15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): <u>PRODUCTION PUMP #2</u> </p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>06.0</u> b. Length: <u>06.0</u> c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> _____ d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 BUCKING POSTS</u> </p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> _____ Other <input type="checkbox"/> _____</p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 2 Annular space seal <input checked="" type="checkbox"/> _____ Other <input type="checkbox"/> _____</p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 7 Lbs/gal mud weight ... Bentonite-sand slurry Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 <u>10</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>200</u> Ft³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 6 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 00</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> _____ <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> _____ <u>BENTONITE POWDER</u> Other <input checked="" type="checkbox"/> _____</p> <p>7. Fine sand material: Manufacturer, product name and mesh size Volume added _____ ft³</p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>COLORADO SILICA SAND #4</u> Volume added <u>20</u> ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/> _____</p> <p>10. Screen material: <u>PVC SCH 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> 1 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/> _____ Manufacturer <u>MONOFLEX</u> Slot size: <u>0.010</u> Slotted length: <u>12.0</u></p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> _____ Other <input type="checkbox"/> _____</p>
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<p>E. Bentonite seal, top <u>-685.6</u> ft MSL or <u>136.0</u> ft</p> <p>F. Fine sand, top <u>NA</u> ft MSL or <u>NA</u> ft</p> <p>G. Filter pack, top <u>-645.6</u> ft MSL or <u>156.0</u> ft</p> <p>H. Well screen, top <u>-648.8</u> ft MSL or <u>172.8</u> ft</p> <p>I. Well screen, bottom <u>-638.8</u> ft MSL or <u>182.8</u> ft</p> <p>J. Filter pack, bottom <u>-638.8</u> ft MSL or <u>182.8</u> ft</p> <p>K. Borehole, bottom <u>-631.6</u> ft MSL or <u>190.0</u> ft</p> <p>L. Borehole, diameter <u>09.0</u> in.</p> <p>M. O.D. well casing <u>04.00</u> in.</p> <p>N. I.D. well casing <u>3.75</u> in.</p>	
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature]

Firm ABB-ES

Factory/Project Name BADGER AAP		Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SPN-91-03D	
Factory License, Permit or Monitoring Number				Well Unique Well Number UNK Well Number	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Section Location 1/4 of 1/4 of Section		Date Well installed 10/08/91 m m d d y y	
Distance Well is From Waste/Source Boundary NA ft.		T <input type="checkbox"/> N. R <input type="checkbox"/> E <input type="checkbox"/> W		Well installed By: (Person's Name and firm) C. RODRIGUEZ	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		LAYNE	

A. Protective pipe, top elevation **-819.48 ft MSL**

B. Well casing, top elevation **-819.36 ft MSL**

C. Land surface elevation **-816.7 ft MSL**

D. Surface seal, bottom **ft MSL or 00.0 ft**

12. USCS classification of soil near screen:

☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP

☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH

☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
DUAL WALL Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☒ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PRODUCTION WELL # 2

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: **06.0 in.**
b. Length: **06.0 ft.**
c. Material: Steel ☐ 0-
Other ☐ --
d. Additional protection? ☒ Yes ☐ No
If yes, describe: **Buckling Tests**

3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐ --

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☒
Other ☐ --

5. Annular space seal: Granular Bentonite ☐ 33
Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
Lbs/gal mud weight ... Bentonite slurry ☐ 31
10 % Bentonite ... Bentonite-cement grout ☒ 50
Ft³ volume added for any of the above
How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 03

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
BENTONITE POWDER Other ☒

7. Fine sand material: Manufacturer, product name and mesh size
Volume added **20** ft³

8. Filter pack material: Manufacturer, product name and mesh size
COLORADO SILICA SAND # 4
Volume added **16** ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐ --

10. Screen material: **SCHEDULE 80 PVC**
Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ --
Manufacturer **MONOFLEX**
Slot size: **0.010 in.**
Slotted length: **10.0 ft.**

11. Backfill material (below filter pack): None ☒
Other ☐

E. Bentonite seal, top **-663.7 ft MSL or 153.0 ft**

F. Fine sand, top **-643.7 ft MSL or 173.0 ft**

G. Filter pack, top **-643.7 ft MSL or 173.0 ft**

H. Well screen, top **-624.2 ft MSL or 190.5 ft**

I. Well screen, bottom **-616.2 ft MSL or 200.5 ft**

J. Filter pack, bottom **-615.7 ft MSL or 201.0 ft**

K. Borehole, bottom **-614.7 ft MSL or 202.0 ft**

L. Borehole, diameter **09.0 in.**

M. O.D. well casing **04.00 in.**

N. I.D. well casing **3.75 in.**

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul R. Thornton

Firm

ABB-ES

Facility/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name SPN-91-0412
Facility License, Permit or Monitoring Number		Well Unique Well Number DNK Well Num
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed 10/01/91 m m d d y y
Distance Well is from Water/Source Boundary NA ft.	T <input type="checkbox"/> N. R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and firm) GABBY RODRIGUEZ
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation 303.92 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 302.58 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 b. Length: 06.0 c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/>
C. Land surface elevation 300.8 ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: 4 BURNING POSTS
D. Surface seal, bottom 300.8 ft. MSL or 300.8 ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 10 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 250 Ft. ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL REV. AIR Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 1 Tremie pumped <input type="checkbox"/> 0 Gravity <input type="checkbox"/> 03
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> BENTONITE POWDER Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh si N/A Volume added N/A ft. ³
Describe PRODUCTION WELL # 2	8. Filter pack material: Manufacturer, product name and mesh si COLORADO SILICA SAND #45 Volume added 20 ft. ³
17. Source of water (attach analysis): PRODUCTION WELL # 2	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/>
E. Bentonite seal, top 656.8 ft. MSL or 144.0 ft.	10. Screen material: PVC Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
F. Fine sand, top N/A ft. MSL or N/A ft.	Manufacturer MONOFLEX Slot size: 0.010 Slotted length: 10.0
G. Filter pack, top 636.8 ft. MSL or 163.0 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top 604.8 ft. MSL or 124.0 ft.	
I. Well screen, bottom 594.8 ft. MSL or 204.0 ft.	
J. Filter pack, bottom 591.8 ft. MSL or 201.0 ft.	
K. Borehole, bottom 588.8 ft. MSL or 212.0 ft.	
L. Borehole, diameter 03.0 in.	
M. O.D. well casing 03.00 in.	
N. I.D. well casing 3.25 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul R. Hunter** Firm **ABB-ES**

Facility/Project Name <u>Budweiser Brewery</u>	Grid Location <u>4800 906.7</u>	Well Name <u>SPN-89-01C</u>
Facility License, Permit or Monitoring Number <u>276,414.4</u>	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave Belen / E.C. Jordan Co.</u>
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section T N R <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed <u>03/28/88</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Wis. Unique Well Number DNR Well Number
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>820.20</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>830</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> --
C. Land surface elevation <u>827.8</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> --
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> -- Other <input checked="" type="checkbox"/> --
13. Soils analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 = 270 gal ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Drill Well</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input checked="" type="checkbox"/> <u>Bentonite slurry</u>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u>
Describe <u>PW #2</u>	Volume added <u>NA</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Filter, Silica Filter Sand</u>
E. Bentonite seal, top <u>122.8</u> ft. MSL or <u>105.0</u> ft.	Volume added <u>1.2</u> ft ³
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> --
G. Filter pack, top <u>112.8</u> ft. MSL or <u>110.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u>
H. Well screen, top <u>111.8</u> ft. MSL or <u>116.0</u> ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> --
I. Well screen, bottom <u>106.8</u> ft. MSL or <u>121.0</u> ft.	Manufacturer <u>Tiemo</u>
J. Filter pack, bottom <u>106.8</u> ft. MSL or <u>121.0</u> ft.	Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft.
K. Borehole, bottom <u>692.8</u> ft. MSL or <u>135.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native Soil</u> Other <input checked="" type="checkbox"/>
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature D. H. Bol Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bader Army Ammunition Plant</u>		Grid Location <u>4,500, 904.7</u> ^m <u>276, 654.4</u> ^{ft}		Well Name <u>SPN-89-02A</u>	
Facility License, Permit or Monitoring Number <u>NA</u>		Section Location <u>1/4 of 1/4 of Section</u> T <u>NA</u> N <u>NA</u> R <u>NA</u> E <u>NA</u> W <u>NA</u>		Wis. Unique Well Number <u>NA</u> DNR Well Number <u>NA</u>	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Date Well Installed <u>02/22/89</u> m m d d y y		Well Installed By: (Person's Name and Firm) <u>Bill Metzger / E. C. Jordan Co.</u>	
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

A. Protective pipe, top elevation <u>823.26</u> ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
B. Well casing, top elevation <u>823.67</u> ft. MSL		2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>	
C. Land surface elevation <u>820.8</u> ft. MSL		d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing Poles</u>	
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.		3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>	
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock		4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>	
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> % Bentonite ... Bentonite-cement grout <input type="checkbox"/> <u>250</u> gal volume added for any of the above	
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>		How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08	
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99		6. Bentonite seal: <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>	
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe: <u>pw #2</u>		7. Fine sand material: Manufacturer, product name and mesh size: <u>NA</u> Volume added <u>NA</u> ft ³	
17. Source of water (attach analysis): <u>pw #2</u>		8. Filter pack material: Manufacturer, product name and mesh size: <u>And Flist, Silica Filter Sand</u> Volume added <u>2.9</u> ft ³	
E. Bentonite seal, top <u>280.8</u> ft. MSL or <u>40.0</u> ft.		9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>	
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.		10. Screen material: <u>Schedule 60 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>	
G. Filter pack, top <u>225.8</u> ft. MSL or <u>45.0</u> ft.		Manufacturer <u>Timco</u> Slot size: <u>0.01</u> in. Slotted length: <u>20.0</u> ft.	
H. Well screen, top <u>269.8</u> ft. MSL or <u>51.0</u> ft.		11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native Soil</u> <input checked="" type="checkbox"/>	
I. Well screen, bottom <u>249.8</u> ft. MSL or <u>21.0</u> ft.			
J. Filter pack, bottom <u>249.8</u> ft. MSL or <u>21.0</u> ft.			
K. Borehole, bottom <u>246.8</u> ft. MSL or <u>24.0</u> ft.			
L. Borehole, diameter <u>2.5</u> in.			
M. O.D. well casing <u>4.5</u> in.			
N. I.D. well casing <u>2.0</u> in.			

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P. L. Bl Firm E. C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>B. Decker Hwy. Ammunition Plant</u>	Grid Location <u>4800, 902.4</u> <u>276, 690.1</u>	Well Name <u>SPN-84-02B</u>
Facility License/Permit or Monitoring Number	<u>NA</u> ft.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/15/89</u>
Distance Well Is From Waste/Source Boundary	T <u>NA</u> N. R. <u>NA</u> E. <u>NA</u> W.	Well Installed By: (Person's Name and Firm) <u>Paul Bolmer / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>823.66</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>823.53</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6</u> in. b. Length: <u>2</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>820.3</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 140 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite Slurry</u> Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>QW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flash Silica Filter Sand</u> Volume added <u>± 4.5</u> ft ³
17. Source of water (attach analysis):	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>767.3</u> ft. MSL or <u>53.0</u> ft.	10. Screen material: <u>schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Timco</u> Slot size: <u>0.01</u> in. Slot length: <u>5.0</u> ft.
G. Filter pack, top <u>762.3</u> ft. MSL or <u>58.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native Gravel</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>726.5</u> ft. MSL or <u>93.8</u> ft.	
I. Well screen, bottom <u>721.5</u> ft. MSL or <u>98.8</u> ft.	
J. Filter pack, bottom <u>721.5</u> ft. MSL or <u>98.8</u> ft.	
K. Borehole, bottom <u>715.3</u> ft. MSL or <u>105.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature Paul Bolmer Firm E.C. Jordan Co.

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4,800 903.2</u> <u>276,702.8</u>	Well Name <u>SPN-89-02C</u>
Facility License, Permit or Monitoring Number	<u>ft</u> <input checked="" type="checkbox"/> N <input type="checkbox"/> S <u>ft</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>08/14/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N, R <u>NA</u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Bill Metzger / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>822.64</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>822.60</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>820.0</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Grout <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> Grout
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 5 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>270</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Dual Wall</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Bentonite Slurry <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u>
Describe <u>Red #2</u>	Volume added <u>NA</u> ft ³
17. Source of water (attach analysis): <u>Red #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flash, Silica F.</u>
E. Bentonite seal, top <u>720.0</u> ft. MSL or <u>100.0</u> ft.	Volume added <u>1.4</u> ft ³
F. Fine sand, top <u>NA</u> ft. MSL or <u>06</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
G. Filter pack, top <u>704.0</u> ft. MSL or <u>116.0</u> ft.	10. Screen material: <u>Schedule 80 PK</u>
H. Well screen, top <u>696.0</u> ft. MSL or <u>124.0</u> ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
I. Well screen, bottom <u>691.0</u> ft. MSL or <u>129.0</u> ft.	Manufacturer <u>Triax</u>
J. Filter pack, bottom <u>691.0</u> ft. MSL or <u>129.0</u> ft.	Slot size: <u>0.010</u> in. Slot length: <u>5.0</u> ft.
K. Borehole, bottom <u>680.0</u> ft. MSL or <u>140.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> <u>Native Clay</u> Other <input type="checkbox"/>
L. Borehole, diameter <u>2.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature [Signature] Firm E.C. Jordan Co.

Facility/Project Name <u>Badger Army Ammunition Plant</u>	Grid Location <u>4800953.7</u> <u>N</u> <input checked="" type="checkbox"/> <u>E</u> <input type="checkbox"/> <u>W</u>	Well Name <u>SPN-89-03B</u>
Facility License, Permit or Monitoring Number <u>226,907.0</u>	<u>N</u> <input checked="" type="checkbox"/> <u>E</u> <input type="checkbox"/> <u>W</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/22/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>N/A</u> ft.	T <u>N</u> <u>R</u> <input type="checkbox"/> <u>E</u> <input type="checkbox"/> <u>W</u>	Well Installed By: (Person's Name and Firm) <u>Paul Bolmer / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>818.23</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>818.09</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>815.1</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing Pads</u>
D. Surface seal, bottom <u>815.1</u> ft. MSL or <u>815.1</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 200 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite Slurry</u> Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>N/A</u> Volume added <u>N/A</u> ft ³
Describe <u>Describe</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Filter Sand</u> Volume added <u>≈ 1.2</u> ft ³
17. Source of water (attach analysis): <u>puw 2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>739.9</u> ft. MSL or <u>752</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>N/A</u> ft. MSL or <u>N/A</u> ft.	Manufacturer <u>Tiemo</u> Slot size: <u>0.01</u> in. Slotted length: <u>5.0</u> ft.
G. Filter pack, top <u>732.5</u> ft. MSL or <u>82.6</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>drill cut</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>726.4</u> ft. MSL or <u>88.2</u> ft.	
I. Well screen, bottom <u>721.4</u> ft. MSL or <u>93.2</u> ft.	
J. Filter pack, bottom <u>721.4</u> ft. MSL or <u>93.2</u> ft.	
K. Borehole, bottom <u>715.1</u> ft. MSL or <u>100.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul Bolmer Firm E.C. Jordan Co.

Facility/Project Name <u>Bio-Pharm Ammonia Plant</u>	Grid Location <u>4, 803, 992.4</u>	Well Name <u>SPU-89-03C</u>
Facility License, Permit or Monitoring Number <u>277, 666.8</u>	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/31/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <input type="checkbox"/> N <input type="checkbox"/> R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>David H. Belin / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>818.65</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>818.25</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>7.9</u> c. Material: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other
C. Land surface elevation <u>815.3</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: <u>Grout</u> <input type="checkbox"/> Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <input type="checkbox"/> Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <u>Grout</u> <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Lbs/gal mud weight... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight... Bentonite slurry <input type="checkbox"/> % Bentonite... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 300 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well</u> Other <input checked="" type="checkbox"/>	How installed: <input type="checkbox"/> Tremie <input type="checkbox"/> Tremie pumped <input checked="" type="checkbox"/> 02 <input type="checkbox"/> Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: <u>Bentonite Slurry</u> <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>NA #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Filter Silica Filter Sand</u> Volume added <u>NA</u> ft ³
17. Source of water (attach analysis): <u>NA #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>703.3</u> ft. MSL or <u>112.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: <input checked="" type="checkbox"/> Factory cut <input type="checkbox"/> 11 <input type="checkbox"/> Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Libbe</u> Slot size: <u>0.010 in.</u> Slotted length: <u>5.0 ft.</u>
G. Filter pack, top <u>698.3</u> ft. MSL or <u>112.0</u> ft.	11. Backfill material (below filter pack): <u>Native Cam</u> <input type="checkbox"/> None <input checked="" type="checkbox"/> Other
H. Well screen, top <u>692.6</u> ft. MSL or <u>122.2</u> ft.	
I. Well screen, bottom <u>692.6</u> ft. MSL or <u>122.2</u> ft.	
J. Filter pack, bottom <u>692.6</u> ft. MSL or <u>122.2</u> ft.	
K. Borehole, bottom <u>685.3</u> ft. MSL or <u>130.0</u> ft.	
L. Borehole, diameter <u>8.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature [Signature] Firm E.C. Jordan Co.

Facility/Project Name <u>Baldwin Army Ammunition Plant</u>	Grid Location <u>4,800,568.5</u> <u>277,211.6</u>	Well Name <u>SPW-89-04B</u>
Facility License, Permit or Monitoring Number	<input checked="" type="checkbox"/> N <input type="checkbox"/> S <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/09/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T N R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>John Snadden / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>804.42</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>804.21</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>801.6</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Grout <input type="checkbox"/> 01 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Grout <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> 30 Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± 400 gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 1/4 in. 3/8 in. 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Bentonite slurry <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Elk Silver Filter sand</u> Volume added <u>1.2</u> ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>RW#2</u>	10. Screen material: <u>Schedule 80 4x</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>242.6</u> ft. MSL or <u>59.0</u> ft.	Manufacturer <u>UNIC</u> Slot size: <u>0.01</u> in. Slotted length: <u>5.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Grout</u> <input checked="" type="checkbox"/>
G. Filter pack, top <u>232.6</u> ft. MSL or <u>64.0</u> ft.	
H. Well screen, top <u>231.6</u> ft. MSL or <u>20.0</u> ft.	
I. Well screen, bottom <u>226.6</u> ft. MSL or <u>25.0</u> ft.	
J. Filter pack, bottom <u>226.6</u> ft. MSL or <u>25.0</u> ft.	
K. Borehole, bottom <u>221.6</u> ft. MSL or <u>80.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.2</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul J. Bol Firm E.C. Jordan Co.

Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4 500, 868.3</u> <u>M</u> <input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <u>277, 242.8</u> <u>E</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>SPN-89-04C</u>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number <u> </u> DNR Well Numr <u> </u>
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of <u> </u> 1/4 of Section <u> </u>	Date Well Installed <u>03/30/89</u> <u>m m d d y y</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave Belan / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>803.36</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>803.12</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 0- Other <input type="checkbox"/> -
C. Land surface elevation <u>800.2</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0- Other <input checked="" type="checkbox"/> -
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> - Other <input checked="" type="checkbox"/> -
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 250 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well</u> Other <input checked="" type="checkbox"/> -	How installed: Tremie <input type="checkbox"/> 0- Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite Slurry</u> Other <input checked="" type="checkbox"/> -
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>PW # 2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Filter Sand</u> Volume added <u>≈ 1.2</u> ft ³
17. Source of water (attach analysis): <u>PW # 2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> -
E. Bentonite seal, top <u>210.2</u> ft. MSL or <u>90.5</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> -
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Tisco</u> Slot size: <u>0.010</u> in. Slotted length: <u>8.0</u> ft.
G. Filter pack, top <u>205.2</u> ft. MSL or <u>95.5</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> - <u>Nature Cave</u> Other <input type="checkbox"/> -
H. Well screen, top <u>699.2</u> ft. MSL or <u>101.5</u> ft.	
I. Well screen, bottom <u>694.2</u> ft. MSL or <u>106.5</u> ft.	
J. Filter pack, bottom <u>694.2</u> ft. MSL or <u>106.5</u> ft.	
K. Borehole, bottom <u>670.2</u> ft. MSL or <u>130.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Belan Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bodger Army Ammunition Plant</u>	Grid Location <u>4,800,838.1</u>	Well Name <u>SPN-69-05A</u>
Facility License: Permit or Monitoring Number <u>279,011.3</u>	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/19/89</u> m m d d v v
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T. N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <u>Bill Metzger / E.C. Jordan Co</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>804.48</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>804.25</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.5</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>801.6</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing Posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>400</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flt. Silica Filter Sand</u> Volume added <u>2.8</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>779.6</u> ft. MSL or <u>22.0</u> ft.	10. Screen material: <u>schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Timco</u> Slot size: <u>0.060</u> in. Slotted length: <u>20.0</u> ft.
G. Filter pack, top <u>774.6</u> ft. MSL or <u>27.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native Cave</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>769.6</u> ft. MSL or <u>32.0</u> ft.	
I. Well screen, bottom <u>749.6</u> ft. MSL or <u>52.0</u> ft.	
J. Filter pack, bottom <u>749.6</u> ft. MSL or <u>52.0</u> ft.	
K. Borehole, bottom <u>741.6</u> ft. MSL or <u>60.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P.L. Bol Firm E.C. Jordan Co

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bedco Army Ammunition Plant</u>	Grid Location <u>4,500,831.8</u> <u>379,006.9</u>	Well Name <u>SPN-89-05B</u>
Facility License, Permit or Monitoring Number	<u>NA</u>	Wis. Unique Well Number DNR Well Num.
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/30/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N. R. <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave Belan / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>804.21</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>804.02</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.91</u> b. Length: <u>2.01</u> c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>801.6</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bracing posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 5 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 57 <u>± 190 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well</u> Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite Slurry</u> Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u>
Describe <u>PW #2</u>	Volume added <u>NA</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Fish Silver Filter Sand</u>
E. Bentonite seal, top <u>730.1</u> ft. MSL or <u>71.5</u> ft.	Volume added <u>± 14</u> ft ³
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
G. Filter pack, top <u>725.1</u> ft. MSL or <u>76.5</u> ft.	10. Screen material: <u>schedule 80 PVC</u>
H. Well screen, top <u>719.6</u> ft. MSL or <u>82.0</u> ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
I. Well screen, bottom <u>714.6</u> ft. MSL or <u>87.0</u> ft.	Manufacturer <u>Timex</u>
J. Filter pack, bottom <u>712.6</u> ft. MSL or <u>89.0</u> ft.	Slot size: <u>0.010</u> in.
K. Borehole, bottom <u>712.6</u> ft. MSL or <u>89.0</u> ft.	Slotted length: <u>0506</u>
L. Borehole, diameter <u>9.5</u> in.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul J. Belan Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Deer Creek Ammunition Plant</u>		Grid Location <u>4,805,556.1</u> <input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <u>279,611.3</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>OBM-89-01</u>	
Facility License, Permit or Monitoring Number		Section Location 1/4 of _____ 1/4 of Section _____ T _____ N, R _____ <input type="checkbox"/> E <input type="checkbox"/> W		Date Well Installed <u>02/02/89</u> m m d d y y	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and Firm) <u>Jim Buss / E.C. Jordan Co.</u>	
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.		Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

<p>A. Protective pipe, top elevation <u>896.12</u> ft. MSL</p> <p>B. Well casing, top elevation <u>895.99</u> ft. MSL</p> <p>C. Land surface elevation <u>893.6</u> ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <p>12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock</p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well</u> Other <input checked="" type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): <u>PW #2</u></p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing posts</u></p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> <u>Grout</u></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u></p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 250</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft³</p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>Red Fish, Silica Fil Sand</u> Volume added <u>± 36</u> ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/></p> <p>10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/></p> <p>Manufacturer <u>Times</u> Slot size: <u>0.010</u> in. Slotted length: <u>30.0</u> ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/></p>
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<p>F. Bentonite seal, top <u>892.1</u> ft. MSL or <u>86.5</u> ft.</p> <p>G. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.</p> <p>H. Filter pack, top <u>999.6</u> ft. MSL or <u>94.0</u> ft.</p> <p>I. Well screen, top <u>988.6</u> ft. MSL or <u>105.0</u> ft.</p> <p>J. Well screen, bottom <u>968.6</u> ft. MSL or <u>125.0</u> ft.</p> <p>K. Filter pack, bottom <u>966.6</u> ft. MSL or <u>127.0</u> ft.</p> <p>L. Borehole, bottom <u>966.6</u> ft. MSL or <u>127.0</u> ft.</p> <p>M. Borehole, diameter <u>9.5</u> in.</p> <p>N. O.D. well casing <u>4.5</u> in.</p> <p>O. I.D. well casing <u>4.0</u> in.</p>	
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co

Facility/Project Name <u>Bushy Run Ammunitions Plant</u>	Grid Location <u>4,805,558.4</u> <u>379,769.2</u>	Well Name <u>DBN-89-02A</u>
Facility License, Permit or Monitoring Number	<u>NA</u>	Wis. Unique Well Number <u>NA</u> DNR Well Number <u>NA</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location <u>1/4 of 1/4 of Section</u>	Date Well Installed <u>02/02/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N, R <u>NA</u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Frank Buehler / E.C. Jordan Co</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>852.25</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>852.10</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: <u>Steel</u> <input checked="" type="checkbox"/> 0 Other <input type="checkbox"/>
C. Land surface elevation <u>854.8</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: <u>Grout</u> Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <u>Grout</u> Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <u>Grout</u> Granular Bentonite <input type="checkbox"/> 30 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 50 <u>5</u> % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 <u>900</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drush Well</u> Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 01 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 30 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 31 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>PO #2</u>	8. Filter pack material: <u>Red Flat, Silice Filter Sand</u> Volume added <u>3.5</u> ft ³
17. Source of water (attach analysis): <u>PO #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>801.8</u> ft. MSL or <u>83.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slotted length: <u>22.0</u> ft.
G. Filter pack, top <u>796.8</u> ft. MSL or <u>88.0</u> ft.	11. Backfill material (below filter pack): <u>None</u> Other <input type="checkbox"/>
H. Well screen, top <u>785.3</u> ft. MSL or <u>99.5</u> ft.	
I. Well screen, bottom <u>765.3</u> ft. MSL or <u>119.5</u> ft.	
J. Filter pack, bottom <u>764.8</u> ft. MSL or <u>120.0</u> ft.	
K. Borehole, bottom <u>764.8</u> ft. MSL or <u>120.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul B. Buehler Firm E.C. Jordan Co

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

City/Project Name <u>Door Army Ammunition Plant</u>	Grid Location <u>4,805,549.6</u> <u>279,264.0</u> N <input checked="" type="checkbox"/> S <input type="checkbox"/> E <input checked="" type="checkbox"/> W <input type="checkbox"/>	Well Name <u>DBN-89-02B</u>
License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/02/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <input type="checkbox"/> N, R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Fred Bragdon / E.C. Jordan Co.</u>
Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

Protective pipe, top elevation <u>882.02</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Well casing, top elevation <u>886.90</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
Well and surface elevation <u>884.8</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing Posts</u>
Surface seal, bottom <u>884.8</u> ft. MSL or <u>884.8</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>+ 1300 gal</u> volume added for any of the above
Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Dug Well</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input checked="" type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>PW #2</u> Source of water (attach analysis):	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silver Filter Sand</u> Volume added <u>1.2</u> ft ³
Bentonite seal, top <u>254.8</u> ft. MSL or <u>130.0</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
Free sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
Filter pack, top <u>245.8</u> ft. MSL or <u>139.0</u> ft.	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft.
Well screen, top <u>239.8</u> ft. MSL or <u>145.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Barbed Core</u> Other <input checked="" type="checkbox"/>
Well screen, bottom <u>234.8</u> ft. MSL or <u>150.0</u> ft.	
Filter pack, bottom <u>234.8</u> ft. MSL or <u>150.0</u> ft.	
Borehole, bottom <u>224.8</u> ft. MSL or <u>160.0</u> ft.	
Borehole, diameter <u>9.5</u> in.	
O.D. well casing <u>4.5</u> in.	
I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul Bol Firm E.C. Jordan Co.

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4805, 597.8</u> <u>M</u> <input checked="" type="checkbox"/> N <input type="checkbox"/> S <u>279, 806.8</u> <u>E</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Name <u>OBM-89-03</u>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number <u> </u> DNR Well Number <u> </u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of <u> </u> 1/4 of Section <u> </u>	Date Well Installed <u>02/16/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N. R. <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Don H. Beker / F.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sadegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>828.29</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>898.85</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>2.01</u> c. Material: <u>Steel</u> <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> <u> </u>
C. Land surface elevation <u>896.4</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking bolts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: <u>Graut</u> Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> <u> </u> Other <input checked="" type="checkbox"/> <u> </u>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <u>Graut</u> Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u> </u> Other <input checked="" type="checkbox"/> <u> </u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 30 Lbs/gal mud weight <u> </u> Bentonite-sand slurry <input type="checkbox"/> <u> </u> Lbs/gal mud weight <u> </u> Bentonite slurry <input type="checkbox"/> 30 <u>5</u> % Bentonite <u> </u> Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>330</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 05
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well</u> Other <input checked="" type="checkbox"/> <u> </u>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 30 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/> <u> </u>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flash, Silica Filter Sand</u> Volume added <u>2.45</u> ft ³
Describe <u> </u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> <u> </u>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> <u> </u>
E. Bentonite seal, top <u>808.4</u> ft. MSL or <u>88.0</u> ft.	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slot length: <u>20.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): <u>Gravel</u> None <input type="checkbox"/> <u> </u> Other <input type="checkbox"/> <u> </u>
G. Filter pack, top <u>798.4</u> ft. MSL or <u>98.0</u> ft.	
H. Well screen, top <u>783.4</u> ft. MSL or <u>113.0</u> ft.	
I. Well screen, bottom <u>763.4</u> ft. MSL or <u>133.0</u> ft.	
J. Filter pack, bottom <u>757.4</u> ft. MSL or <u>139.0</u> ft.	
K. Borehole, bottom <u>757.4</u> ft. MSL or <u>139.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Firm F.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Project Name <u>Deer Army Ammunition Plant</u>		Grid Location <u>4,805,574.1</u> <u>379,605.0</u>		Well Name <u>DBN-89-04A</u>	
Facility License, Permit or Monitoring Number		Section Location 1/4 of 1/4 of Section		Date Well Installed <u>02/15/89</u>	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and Firm) <u>Deer H. Behn / E.C. Jordan Co.</u>	
Distance Well Is From Waste/Source Boundary <u>124</u> ft.		T <input type="checkbox"/> N, R <input type="checkbox"/> E <input type="checkbox"/> W			
Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

Protective pipe, top elevation <u>920.02</u> ft. MSL		1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Well casing, top elevation <u>919.89</u> ft. MSL		2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>	
Land surface elevation <u>912.5</u> ft. MSL		d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing beds</u>	
Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.		3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>	
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock		4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>	
Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No		5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite . . . Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 340 gal</u> volume added for any of the above	
Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well</u> Other <input checked="" type="checkbox"/>		How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08	
Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99		6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>	
Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u>	
Describe <u>PW #2</u>		Volume added <u>NA</u> ft ³	
Source of water (attach analysis): <u>PW #2</u>		8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silver Filter Sand</u>	
		Volume added <u>± 26</u> ft ³	
Bentonite seal, top <u>291.5</u> ft. MSL or <u>126.0</u> ft.		9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>	
Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.		10. Screen material: <u>schedule 80 PVC</u>	
Filter pack, top <u>786.5</u> ft. MSL or <u>131.0</u> ft.		Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>	
Well screen, top <u>782.5</u> ft. MSL or <u>135.0</u> ft.		Manufacturer <u>Times</u>	
Well screen, bottom <u>762.5</u> ft. MSL or <u>155.0</u> ft.		Slot size: <u>0.01</u> in. Slotted length: <u>20.0</u> ft.	
Filter pack, bottom <u>762.5</u> ft. MSL or <u>155.0</u> ft.		11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>	
Borehole, bottom <u>762.5</u> ft. MSL or <u>155.0</u> ft.			
Borehole, diameter <u>9.5</u> in.			
O.D. well casing <u>9.5</u> in.			
I.D. well casing <u>4.0</u> in.			

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Use complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Sadler Army Ammunition Plant</u>	Grid Location <u>4,805,881.4</u> <u>279,599.6</u>	Well Name <u>DBN-89-04B</u>
Facility License, Permit or Monitoring Number	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number <u> </u> DNR Well No. <u> </u>
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of <u> </u> 1/4 of Section <u> </u> T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed <u>02/14/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Jim Bass / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>920.30</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>930.14</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>7.5</u> c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>912.2</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>5</u> % Bentonite ... volume added for any of the above <u>450 gal</u> How installed: Tremie <input type="checkbox"/> 6 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 0
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Deal Well</u> Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh si <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh si <u>Red Flash, Silver Filter Sand</u> Volume added <u>2.41</u> ft ³
Describe <u> </u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 1 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
E. Bentonite seal, top <u>245.2</u> ft. MSL or <u>122.0</u> ft.	Manufacturer <u>Libco</u> Slot size: <u>0.010</u> Slotted length: <u>5.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): Non <input type="checkbox"/> <u>Water Case</u> Other <input type="checkbox"/>
G. Filter pack, top <u>240.7</u> ft. MSL or <u>122.0</u> ft.	
H. Well screen, top <u>235.7</u> ft. MSL or <u>122.0</u> ft.	
I. Well screen, bottom <u>230.7</u> ft. MSL or <u>122.0</u> ft.	
J. Filter pack, bottom <u>230.7</u> ft. MSL or <u>122.0</u> ft.	
K. Borehole, bottom <u>223.7</u> ft. MSL or <u>125.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>9.5</u> in.	
N. I.D. well casing <u>9.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature E.C. Jordan Co. Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bedder Army Ammunition Plant</u>	Grid Location <u>4905,625.7</u> <u>299,535.2</u> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W. <input type="checkbox"/>	Well Name <u>DBM-89-05</u>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/15/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T. <input type="checkbox"/> N. <input type="checkbox"/> R. <input type="checkbox"/> E. <input type="checkbox"/> W. <input type="checkbox"/>	Well Installed By: (Person's Name and Firm) <u>David Belan / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>900.58</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>900.43</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>897.9</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking ports</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 250 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well</u> Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe <u>pw #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat, Silica Filter Sand</u> Volume added <u>≈ 3.4</u> ft ³
17. Source of water (attach analysis): <u>pw #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>805.9</u> ft. MSL or <u>92.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Timex</u> Slot size: <u>0.010</u> in. Slotted length: <u>20.0</u> ft.
G. Filter pack, top <u>801.9</u> ft. MSL or <u>96.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>790.9</u> ft. MSL or <u>107.0</u> ft.	
I. Well screen, bottom <u>770.9</u> ft. MSL or <u>127.0</u> ft.	
J. Filter pack, bottom <u>770.9</u> ft. MSL or <u>127.0</u> ft.	
K. Borehole, bottom <u>770.9</u> ft. MSL or <u>127.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul Belan Firm E.C. Jordan Co.

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WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. DBM-82-01

DATE 3/23/82

CHIEF Mark D.

LOCATION Badger Army Ammunition Plant; Deterrent Burning Group

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 173 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
146 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
126 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20 FEET.
- 5 TOTAL LENGTH OF PIPE 155.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.2 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.2
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 6:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 27 FEET.
- 12 DEPTH TO FIRST COUPLING 7.85 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 176 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
DBM-82-01	5/11/82	-	139.73'	From top of casir.

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

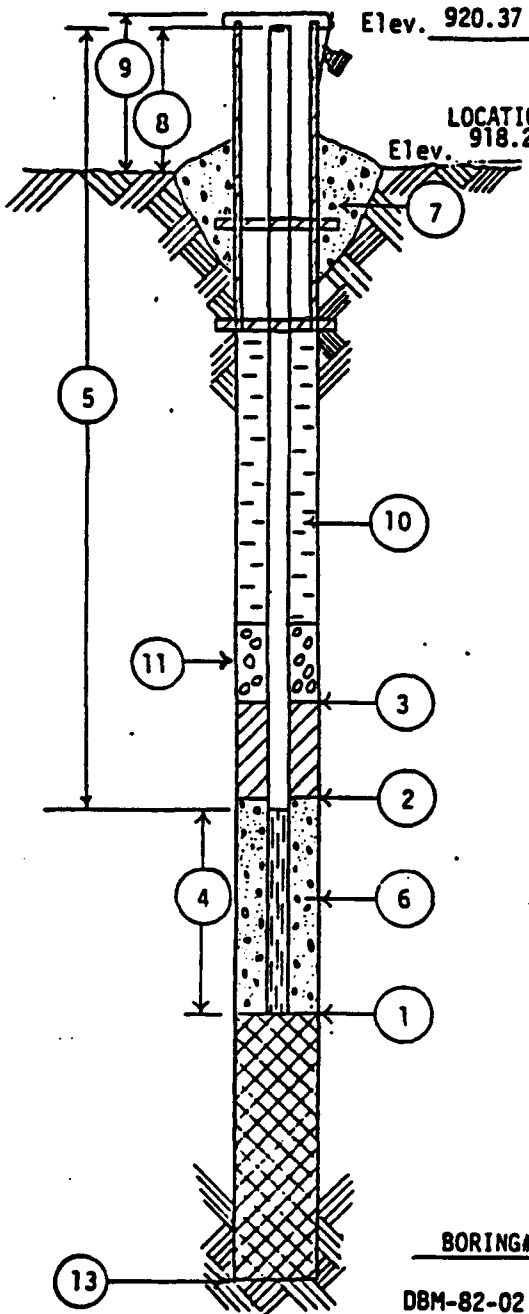
BORING NO. DBM-82-02

DATE 3/20/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Deterrent Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 155.5 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 125.5 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 105.5 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20 FEET.
- 5 TOTAL LENGTH OF PIPE 138 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 30 FEET.
- 12 DEPTH TO FIRST COUPLING 9.25 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 155.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
DBM-82-02	5/11/82	-	137.66'	From top of casing

WELL DETAIL INFORMATION SHEET

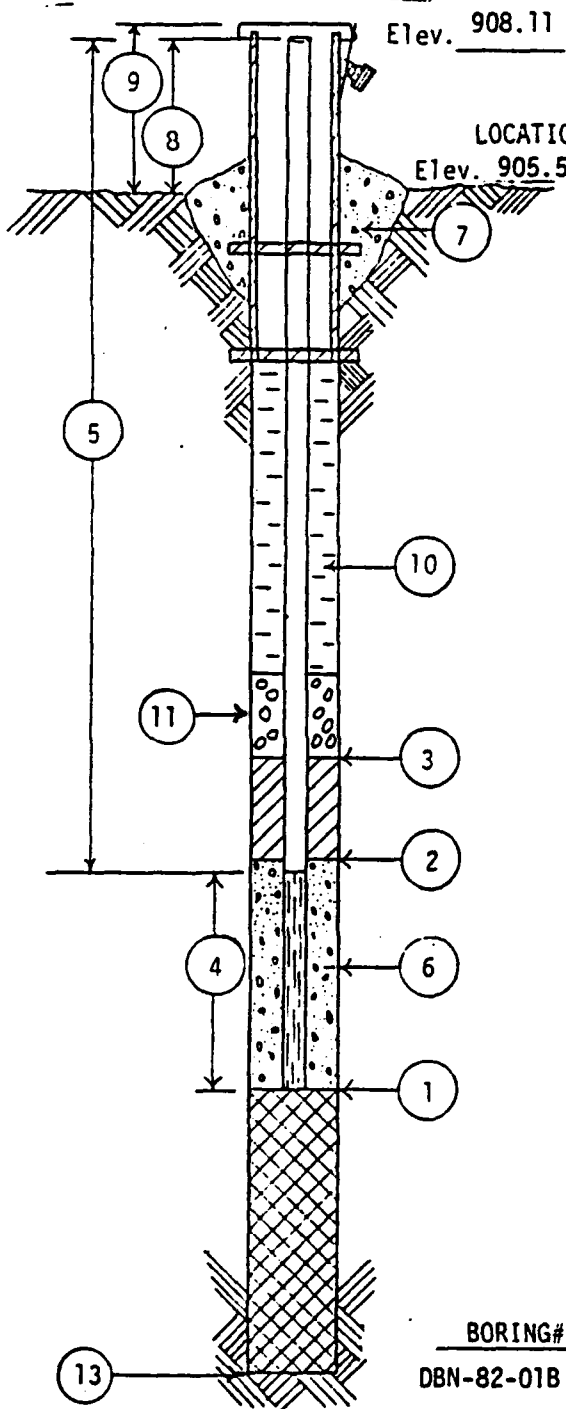
JOB NO. C 10313

BORING NO. DBN-82-01B

DATE 3/22/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Deterrent Burning Ground

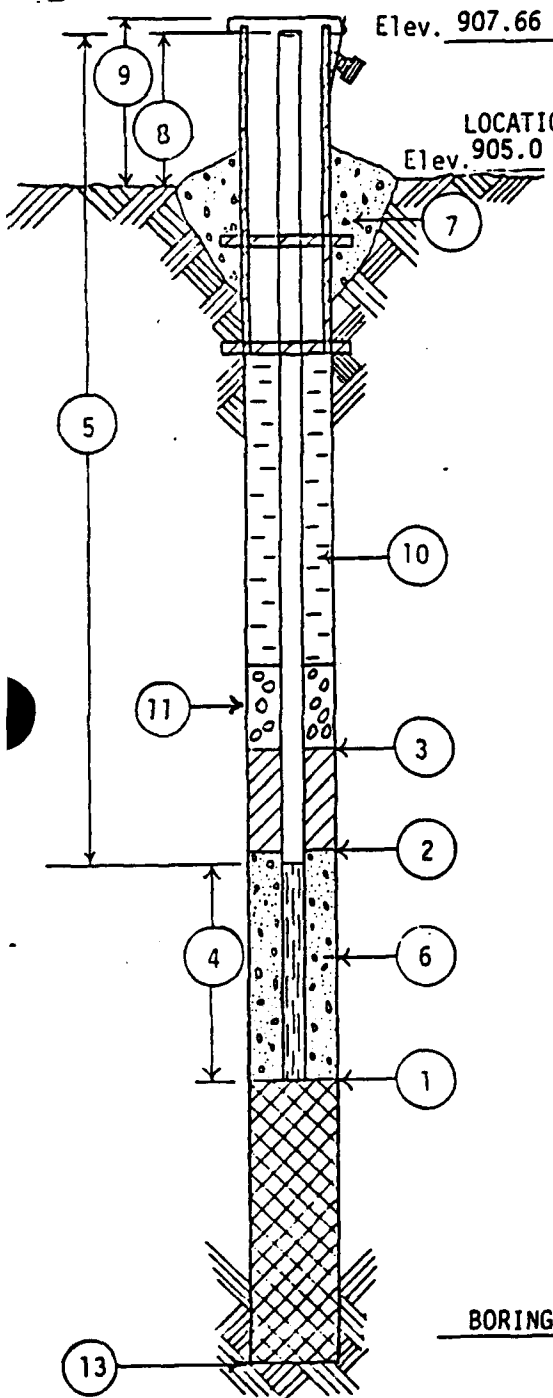


All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 157 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 146 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 126 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 2 FEET.
- 5 TOTAL LENGTH OF PIPE 157.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, ☒ YES ☐ NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? ☒ YES ☐ NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? ☒ YES ☐ NO (Circle One)
- 10 TYPE OF BACKFILL: 7:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 11 FEET.
- 12 DEPTH TO FIRST COUPLING 8.75 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 157 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
DBN-82-01B	5/11/82	-	128.68'	From top of casin

WELL DETAIL INFORMATION SHEET



JOB NO. C 10313
 BORING NO. DBN-82-01C
 DATE 3/22/82
 CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Deterrent Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 167 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 156 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 136 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 2.0 FEET.
- 5 TOTAL LENGTH OF PIPE 167.5 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.5
 LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 6:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 11 FEET.
- 12 DEPTH TO FIRST COUPLING 9.0 FEET.
 COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 167 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-01C	5/11/82	-	128.28	From top of casing

Facility/Project Name <u>BAUER AAP</u>	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>ELW-91-07A</u>
Facility License, Permit or Monitoring Number		Well Unique Number <u>DNR well No</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> H Piezometer <input type="checkbox"/> P	Section Location 1/4 of 1/4 of Section T. N. R. <input type="checkbox"/> E. <input type="checkbox"/> W	Date Well installed <u>11/10/91</u> m m d d y y
Distance Well is From Waste/Source Boundary <u>NA</u> ft.	Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well installed By: (Person's Name and Firm) <u>G. Rodriguez</u>
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<u>LAJNE</u>

A. Protective pipe, top elevation <u>892.23</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>892.65</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>06.5</u> b. Length: <u>06.5</u> c. Material: <u>Steel</u> <input checked="" type="checkbox"/> U- Other <input type="checkbox"/>
C. Land surface elevation <u>895.3</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>BURNING POSTS AND GRAVEL</u>
D. Surface seal, bottom <u>895.3</u> ft. MSL or <u>895.3</u> ft.	3. Surface seal: <u>Bentonite</u> <input checked="" type="checkbox"/> 20 Concrete <input type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <u>Bentonite</u> <input checked="" type="checkbox"/> 20 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <u>Granular Bentonite</u> <input checked="" type="checkbox"/> 33 Lbs/gal mud weight... Bentonite-sand slurry Lbs/gal mud weight... Bentonite slurry <u>5</u> % Bentonite... Bentonite-cement grout <input checked="" type="checkbox"/> 50 Ft. ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> 6 Gravity <input checked="" type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>DUAL WALL RW. AIR</u> <input checked="" type="checkbox"/>	6. Bentonite seal: <u>Bentonite granules</u> <input type="checkbox"/> <input checked="" type="checkbox"/> 7/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size: <u>JOSE</u> Volume added <u>20</u> ft. ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size: <u>CSSI #4</u> Volume added <u>20</u> ft. ³
Describe <u>BAUER PRODUCTION WELL #2</u>	9. Well casing: <u>Flush threaded PVC schedule 40</u> <input type="checkbox"/> 23 <u>Flush threaded PVC schedule 80</u> <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>BAUER PRODUCTION WELL #2</u>	10. Screen material: <u>SC4 80 4" PVC</u> Screen type: <u>Factory cut</u> <input checked="" type="checkbox"/> 1 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
E. Bentonite seal, top <u>796.3</u> ft. MSL or <u>099.0</u> ft.	Manufacturer <u>MONOFLEX</u> Slot size: <u>0.010</u> Slotted length: <u>10.9</u>
F. Fine sand, top <u>796.3</u> ft. MSL or <u>099.0</u> ft.	11. Backfill material (below filter pack): <u>SURROUNDING SEDIMENT</u> <input checked="" type="checkbox"/> None <input type="checkbox"/> Other
G. Filter pack, top <u>796.3</u> ft. MSL or <u>204.0</u> ft.	
H. Well screen, top <u>799.5</u> ft. MSL or <u>215.8</u> ft.	
I. Well screen, bottom <u>769.5</u> ft. MSL or <u>225.8</u> ft.	
J. Filter pack, bottom <u>769.3</u> ft. MSL or <u>226.0</u> ft.	
K. Borehole, bottom <u>765.3</u> ft. MSL or <u>230.0</u> ft.	
L. Borehole, diameter <u>09.0</u> in.	
M. O.D. well casing <u>04.50</u> in.	
N. I.D. well casing <u>03.75</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Ruster Firm ABS-BES

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

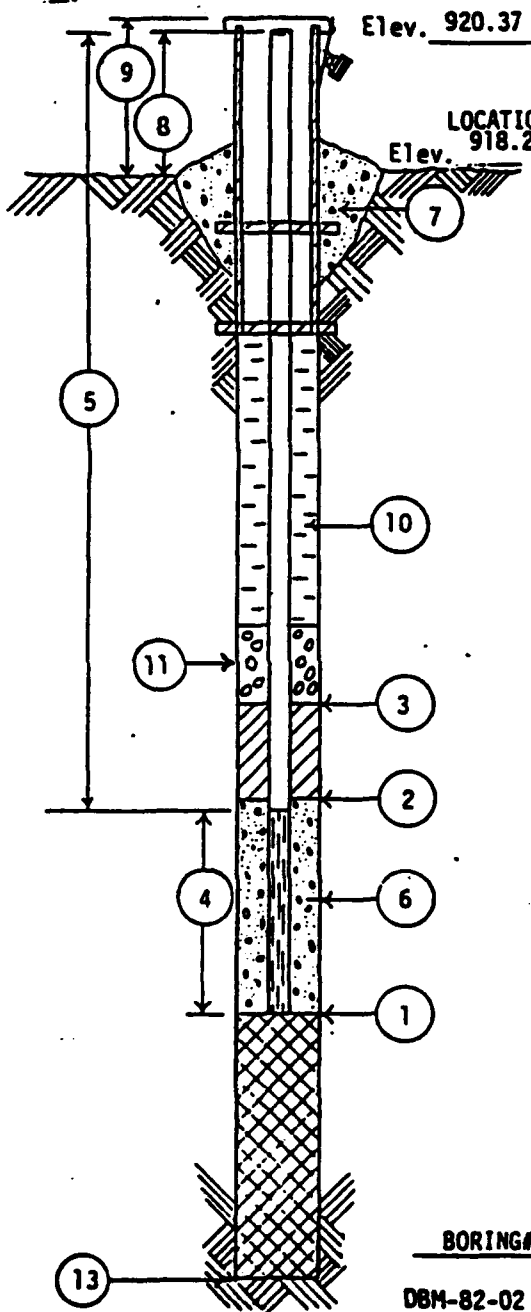
BORING NO. DBM-82-02

DATE 3/20/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Deterrent Burning Grounds

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 155.5 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
125.5 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
105.5 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20 FEET.
- 5 TOTAL LENGTH OF PIPE 138 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:2 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 30 FEET.
- 12 DEPTH TO FIRST COUPLING 9.25 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 155.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
DBM-82-02	5/11/82	-	137.66'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

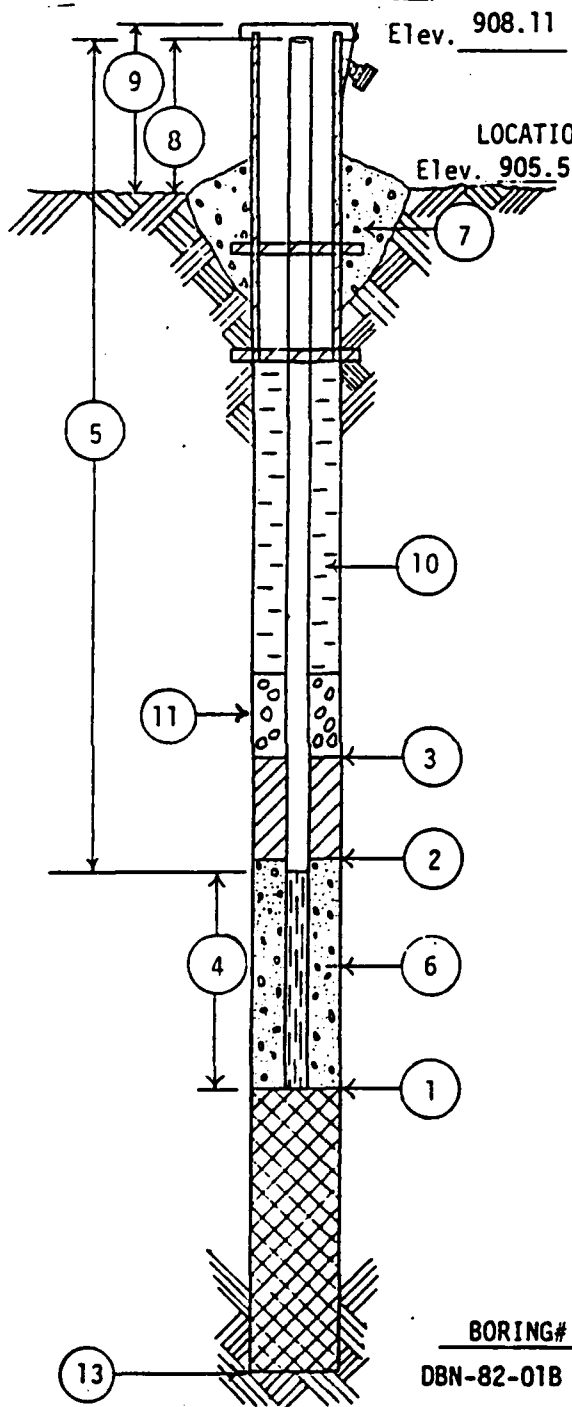
BORING NO. DBN-82-01B

DATE 3/22/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Deterrent Burning Ground

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 157 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 146 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 126 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 2 FEET.
- ⑤ TOTAL LENGTH OF PIPE 157.5 FEET @ 4 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, ☒ YES ☐ NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? ☒ YES ☐ NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? ☒ YES ☐ NO (Circle One)
- ⑩ TYPE OF BACKFILL: 7:2 Cement: Bentonite
- ⑪ THICKNESS OF GRAVEL PACK 11 FEET.
- ⑫ DEPTH TO FIRST COUPLING 8.75 FEET.
COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 157 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
DBN-82-01B	5/11/82	-	128.68'	From top of casin

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. ELN-82-03A

DATE 3/24/82

CHIEF Larry F.

LOCATION Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 155 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
140 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
120 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
10 FEET.
- 5 TOTAL LENGTH OF PIPE 147.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5.
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement: Bentonite Grout 5:1
- 11 THICKNESS OF GRAVEL PACK 15 FEET.
- 12 DEPTH TO FIRST COUPLING 0.7 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 155 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-03A	5/11/82	-	148.65'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

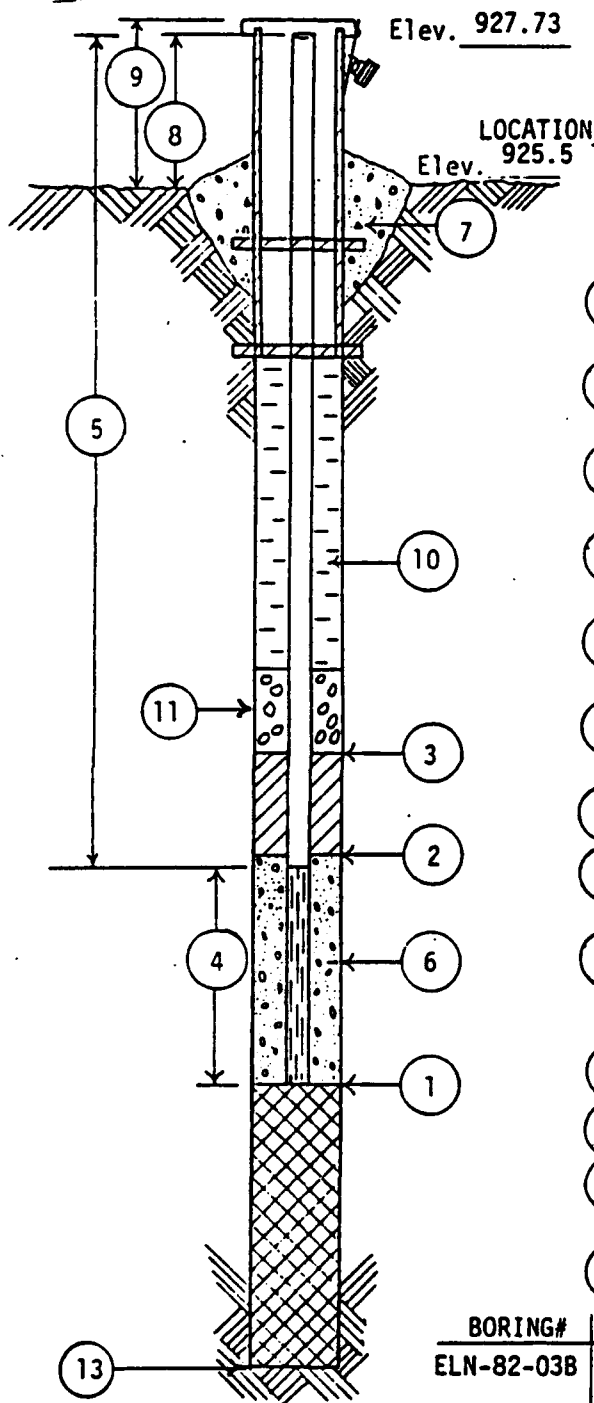
BORING NO. ELN-82-03B

DATE 3/25/82

CHIEF TO

Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 166 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
146 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
126 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
2 FEET.
- 5 TOTAL LENGTH OF PIPE 166.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES 2.5 NO (Circle One)
HEIGHT ABOVE GROUND
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement: Bentonite Grout
- 11 THICKNESS OF GRAVEL PACK 20 FEET.
- 12 DEPTH TO FIRST COUPLING 8.5 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 166 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-038	3/25/82	4:30	50'	1 hour after development
	3/26/82	11:30	125'	
	5/11/82	-	148.54'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

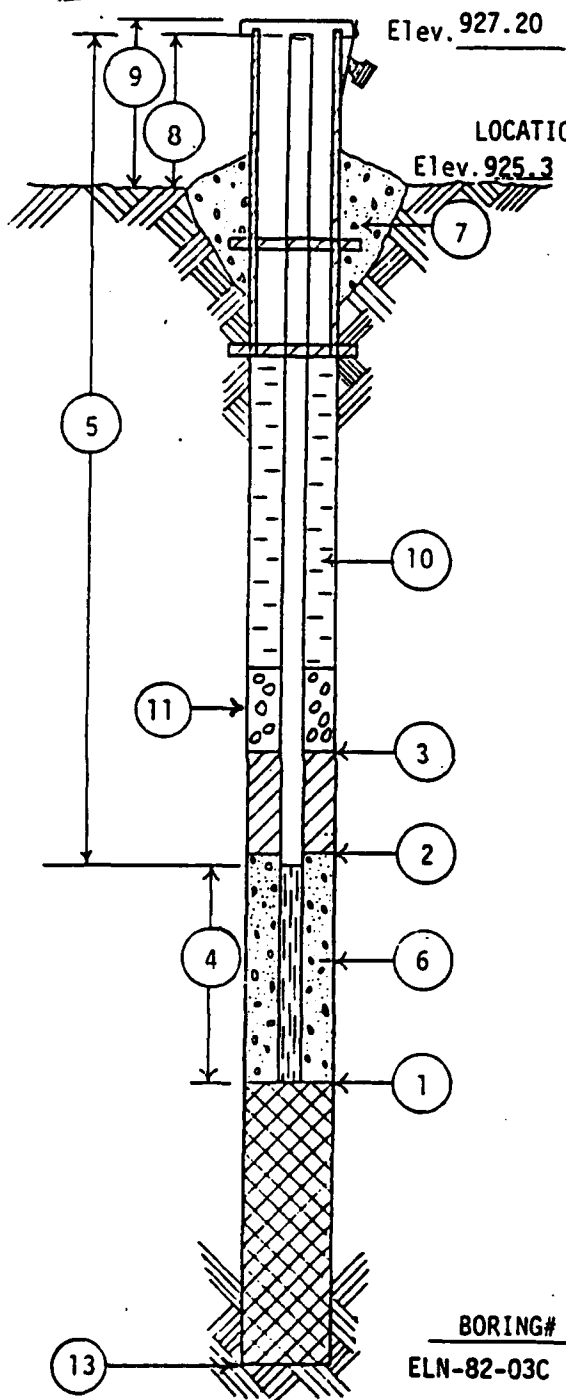
BORING NO. ELN-82-03C

DATE 3/24/82

CHIEF TO

LOCATION Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 176 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 164 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 144 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 2 FEET.
- 5 TOTAL LENGTH OF PIPE 176.5 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement, Bentonite Grout 5:1
- 11 THICKNESS OF GRAVEL PACK 12 FEET.
- 12 DEPTH TO FIRST COUPLING 8.5 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 176 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-03C	5/11/82	0	148.04	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. ELN-82-04A

DATE 3/26/82

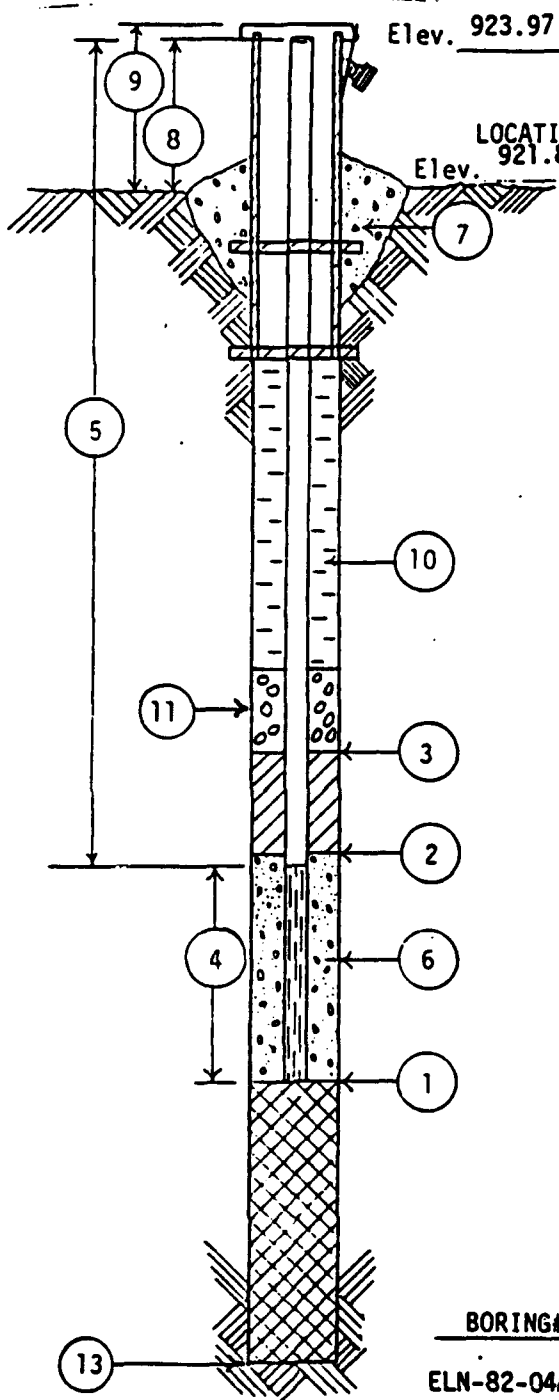
CHIEF LF

LOCATION Badger Army Ammunition Plant; Existing Landfill

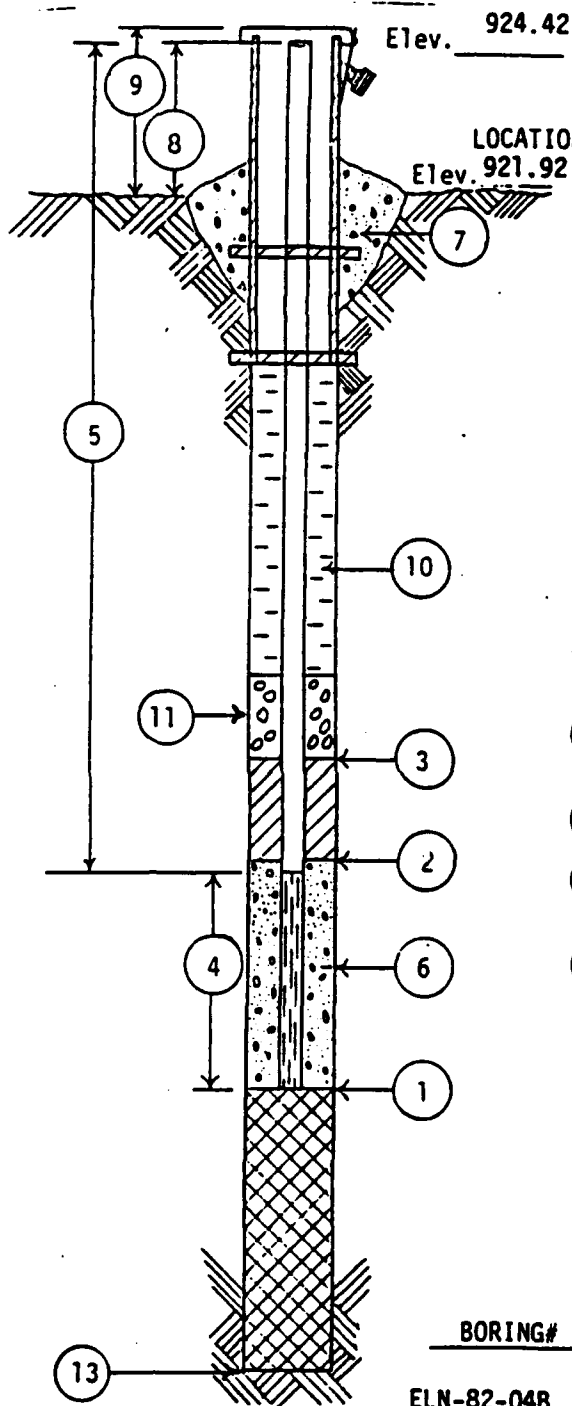
All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 151 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
131 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
111 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
10 FEET.
- 5 TOTAL LENGTH OF PIPE 143.5 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5.
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement: Bentonite Grout 5:1
- 11 THICKNESS OF GRAVEL PACK 20 FEET.
- 12 DEPTH TO FIRST COUPLING 5 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 151 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-04A	5/11/82	-	144.25'	From top of casing



WELL DETAIL INFORMATION SHEET

JOB NO. C 10313BORING NO. ELN-82-04BDATE 3/26/82CHIEF LFLOCATION Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 165 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 143 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 123 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 2 FEET.
- ⑤ TOTAL LENGTH OF PIPE 165.5 FEET @ 2 IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Bentonite: Cement Grout 3:5
- ⑪ THICKNESS OF GRAVEL PACK 22 FEET.
- ⑫ DEPTH TO FIRST COUPLING 8.5 FEET.
COUPLING INTERVAL 9.75 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 165 FEET.

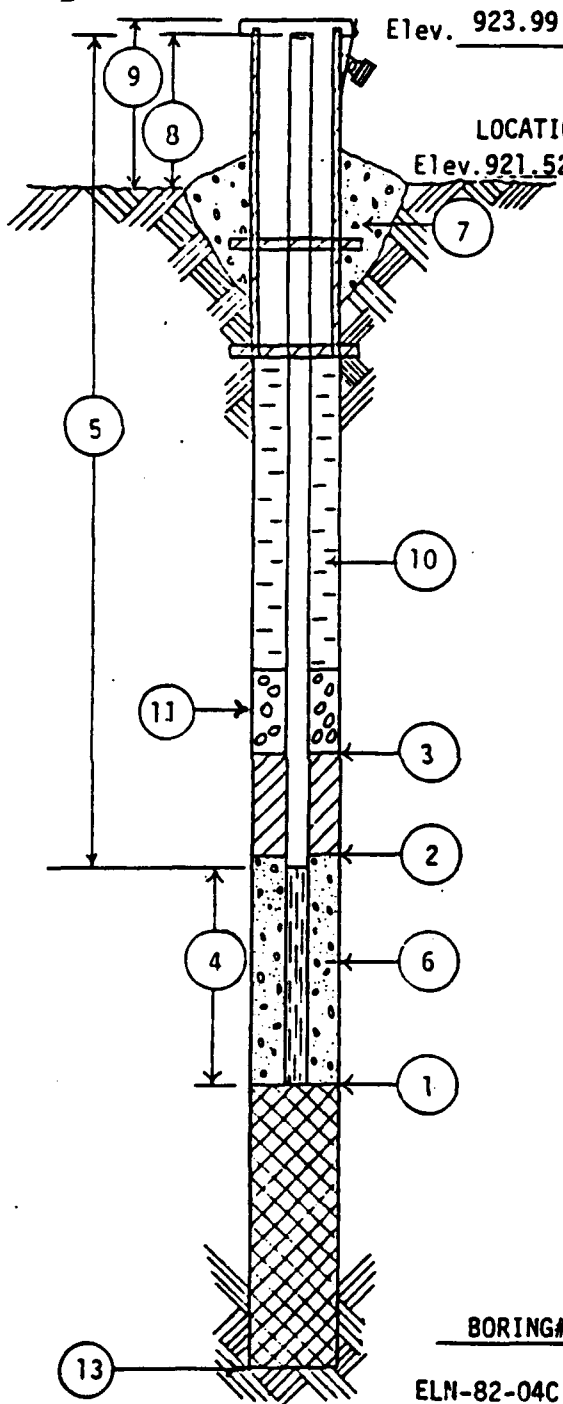
BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-04B	5/11/82	-	144.47'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313
 BORING NO. ELN-82-04C
 DATE 3/25/82
 CHIEF LF

LOCATION Badger Army Ammunition Plant: Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 173 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 152 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 132 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 2 FEET.
- 5 TOTAL LENGTH OF PIPE 173.5 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.5
 LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:1 Cement: Bentonite
- 11 THICKNESS OF GRAVEL PACK 21 FEET.
- 12 DEPTH TO FIRST COUPLING 9.0 FEET.
 COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 173 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-04C	5/11/82	-	144.77'	From top of casing

ABB Environmental Services, Inc.

MONITORING WELL CONSTRUCTION FORM

Facility/Project Name <u>BADGER AAP</u>	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>RPM-91-01</u>
Factory License, Permit or Monitoring Number		Wis. Unique Well Number: DNR Well Number:
Type of Well: Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location <u>SE</u> 1/4 of <u>SW</u> 1/4 of Section <u>7</u>	Date Well Installed <u>10/26/91</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>10</u> N. R <u>7</u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>G RODRIGUEZ</u>
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input checked="" type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	<u>LATNE</u>

A. Protective pipe, top elevation <u>834.14</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>833.96</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>06.0</u> in. b. Length: <u>06.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 0 - Other <input type="checkbox"/>
C. Land surface elevation <u>821.8</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>BURNING POSTS + GRAVEL</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 30 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 30 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 30 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>120</u> Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>DUAL WALL</u> Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 30 <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NONE</u> Volume added _____ ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size <u>CSSE SILICA SAND #4</u> Volume added <u>24</u> ft ³
17. Source of water (attach analysis): <u>PRODUCTION WELL #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>788.4</u> ft. MSL or <u>083.4</u> ft.	10. Screen material: <u>SCH 80 PVC 4" DIAM</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	Manufacturer <u>MOJOFLX</u> Slot size: <u>0.019</u> in. Slot length: <u>10.00</u> ft.
G. Filter pack, top <u>782.8</u> ft. MSL or <u>089.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>776.0</u> ft. MSL or <u>095.8</u> ft.	
I. Well screen, bottom <u>766.0</u> ft. MSL or <u>105.8</u> ft.	
J. Filter pack, bottom <u>761.8</u> ft. MSL or <u>110.0</u> ft.	
K. Borehole, bottom <u>761.8</u> ft. MSL or <u>110.0</u> ft.	
L. Borehole, diameter <u>09.0</u> in.	
M. O.D. well casing <u>04.25</u> in.	
N. I.D. well casing <u>03.75</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Runko Firm ABIS-ES

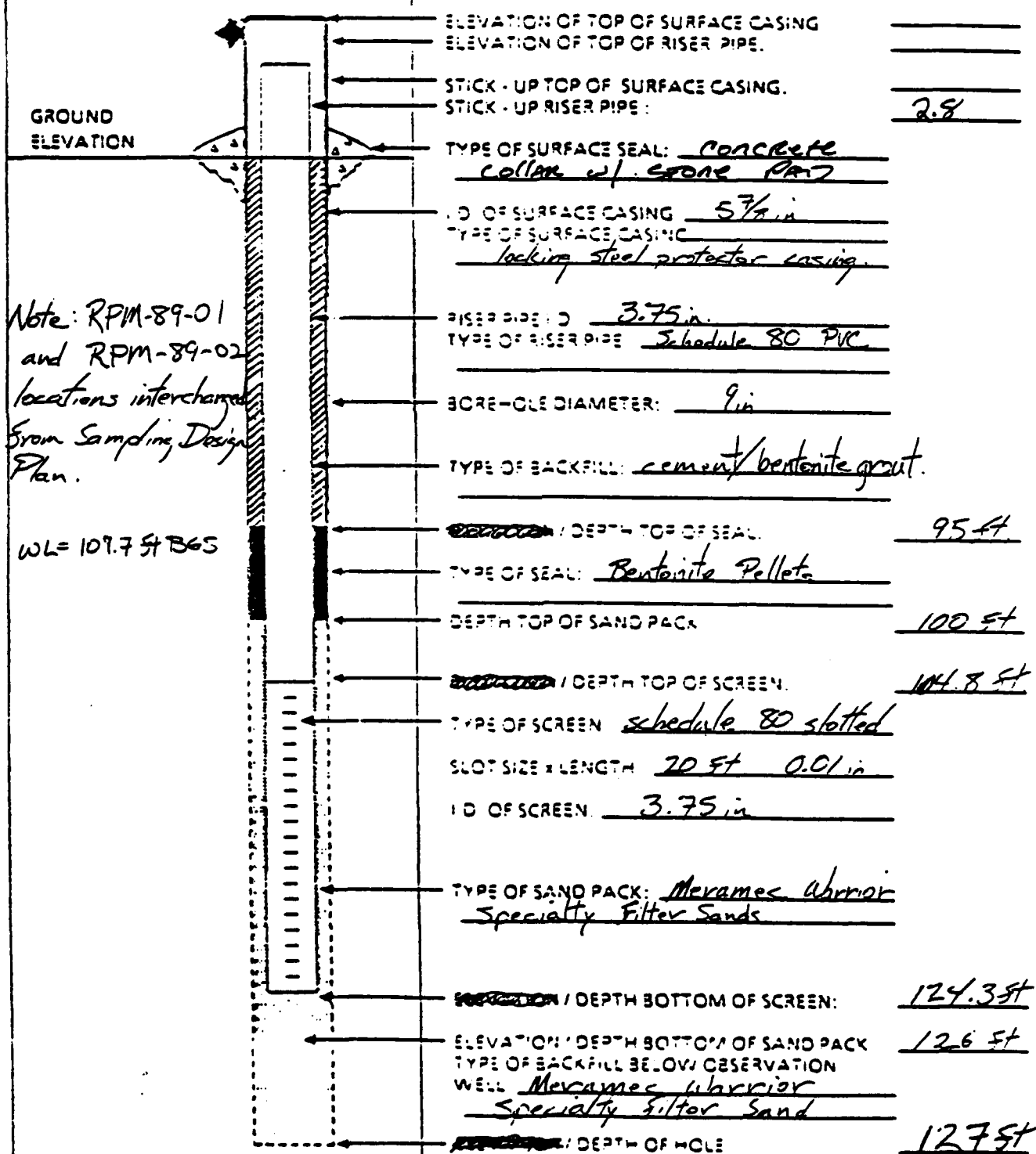
Facility/Project Name <u>Bader Ammunition Plant</u>	Grid Location <u>4,803,645.3</u> ft. <input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <u>279,502.4</u> ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>RPM-89-01</u>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number <u> </u> DNR Well Numt <u> </u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of <u> </u> 1/4 of Section <u> </u>	Date Well Installed <u>10/16/89</u> m m d d v v
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N. R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Jim Bus / E.C. Jordan Co</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input checked="" type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>888.83</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>888.65</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> <u> </u>
C. Land surface elevation <u>886.2</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts around the well</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/> <u>GROUT</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u> </u> Other <input checked="" type="checkbox"/> <u>GROUT</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> <u> </u> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> <u> </u> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> <u> </u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 260 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input type="checkbox"/> <u> </u> <u>Drill through casing</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 32 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/> <u> </u>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u> </u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Messman Wincor Specialty Filter Sands</u> Volume added <u>29</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> <u> </u>
E. Bentonite seal, top <u>291.2</u> ft. MSL or <u>95.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> <u> </u>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Manoflex</u> Slot size: <u>0.010</u> in. Slotted length: <u>12.5</u> ft.
G. Filter pack, top <u>286.2</u> ft. MSL or <u>100.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Messman Wincor Specialty Filter Sands</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>281.4</u> ft. MSL or <u>104.8</u> ft.	
I. Well screen, bottom <u>261.9</u> ft. MSL or <u>124.3</u> ft.	
J. Filter pack, bottom <u>260.2</u> ft. MSL or <u>126.0</u> ft.	
K. Borehole, bottom <u>259.2</u> ft. MSL or <u>122.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

BORING NO RPM-A-01OVERBURDEN
MONITORING WELL SHEETPROJECT BAAP
PROJECT NO 1049-04
ELEVATION 2
FIELD GEOLOGIST J. BussLOCATION Rocket Pasta
BORING RPM-89-01
DATE 10/16/89DRILLER Mathay/M. Tinner
DRILLING
METHOD Air Rotary
DEVELOPMENT
METHOD Pumping

Facility/Project Name <u>Bedford Army Ammunition Plant</u>	Grid Location <u>4, 803, 851.0</u> <input checked="" type="checkbox"/> N <input type="checkbox"/> S <u>279, 100.8</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Name <u>RPM-89-02</u>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number <u> </u> DNR Well Num. <u> </u>
Type of Well <input checked="" type="checkbox"/> 11 Water Table Observation Well <input type="checkbox"/> 12 Piezometer	Section Location 1/4 of <u> </u> 1/4 of Section <u> </u> T <u> </u> N. R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed <u>10/13/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input checked="" type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Jim Buss / E.C. Jordan Co</u>
Is Well A Point of Enforcement Sid. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>824.95</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>824.26</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>2.0</u> c. Material: <u>Steel</u> <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
C. Land surface elevation <u>823.0</u> ft. MSL	3. Surface seal: <u>Grout</u> Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	4. Material between well casing and protective pipe: <u>Grout</u> Bentonite <input type="checkbox"/> 3 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	5. Annular space seal: <u>Grout</u> Granular Bentonite <input type="checkbox"/> 8 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 8 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>2 350 0.1</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Bentonite seal: <u> </u> <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill through casing</u> Other <input checked="" type="checkbox"/>	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name and mesh size <u>Memmer Warner, Specialty Filter Sands</u> Volume added <u>~ 3.1</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
Describe <u> </u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	Manufacturer <u>Mono Flex</u> Slot size: <u>0.010 in.</u> Slotted length: <u>19.5 ft.</u>
E. Bentonite seal, top <u>791.0</u> ft. MSL or <u>82.0</u> ft.	11. Backfill material (below filter pack): <u>None</u> Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	
G. Filter pack, top <u>786.0</u> ft. MSL or <u>87.0</u> ft.	
H. Well screen, top <u>780.7</u> ft. MSL or <u>92.3</u> ft.	
I. Well screen, bottom <u>761.2</u> ft. MSL or <u>111.8</u> ft.	
J. Filter pack, bottom <u>758.0</u> ft. MSL or <u>115.0</u> ft.	
K. Borehole, bottom <u>758.0</u> ft. MSL or <u>115.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

BORING NO RPM-89-02OVERBURDEN
MONITORING WELL SHEET

PROJECT BAAP Phase II LOCATION Rocket Pate DRILLER Max Tinnin
 PROJECT NO 6049-04 BORING RPM-89-02 DRILLING
 ELEVATION _____ DATE 10/12/89 METHOD TH-60
 FIELD GEOLOGIST Jim Buss DEVELOPMENT
 METHOD _____

GROUND ELEVATION _____

ELEVATION OF TOP OF SURFACE CASING: _____
 ELEVATION OF TOP OF RISER PIPE: _____

STICK - UP TOP OF SURFACE CASING: _____
 STICK - UP RISER PIPE: 2.2'

TYPE OF SURFACE SEAL: concrete collar w/ stone pad

I.D. OF SURFACE CASING: 5 3/8 in
 TYPE OF SURFACE CASING: locking steel protector casing

RISER PIPE I.D. 3.75 in
 TYPE OF RISER PIPE: Schedule 80 PVC

BORE-OLE DIAMETER: 9 in

TYPE OF BACKFILL: 82'-60' Natural Cave 60-0 gravel

ELEVATION / DEPTH TOP OF SEAL: 82 ft

TYPE OF SEAL: Bentonite pellets

DEPTH TOP OF SAND PACK: 87 ft

ELEVATION / DEPTH TOP OF SCREEN: 92.3

TYPE OF SCREEN: schedule 80
 SLOT SIZE x LENGTH: 20 ft 0.01 in
 I.D. OF SCREEN: 3.75 in

TYPE OF SAND PACK: Meramec Warrior Specialty Sands

ELEVATION / DEPTH BOTTOM OF SCREEN: 111.8

ELEVATION / DEPTH BOTTOM OF SAND PACK: 115 ft
 TYPE OF BACKFILL BELOW OBSERVATION WELL: Silica filter sand

ELEVATION / DEPTH OF HOLE: JAB 115

WL=96.2' BGS
 ~2hr after install

Note: This well
 RPM-89-02 and
 RPM-89-01
 locations
 interchanged
 from sampling
 design plan.

Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location <u>4,804,671.6</u>	Well Name <u>NPM-89-01</u>
Facility License, Permit or Monitoring Number <u>279,174.7</u>	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number <u>1012589</u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of _____ 1/4 of Section _____	Date Well Installed <u>10/25/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T. _____ N. R. _____ <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <u>Dave Beland / E.C. Jordan Co</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>863.03</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>862.27</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>2.0</u> c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>861.5</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input checked="" type="checkbox"/> 30 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± 300 gal ft ³ volume added for any of the above
14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input type="checkbox"/> _____	How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 0
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size <u>Mosier-Werner, Specialty Filter Sands</u> Volume added <u>2.9</u> ft ³
17. Source of water (attach analysis): <u>DW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>292.5</u> ft. MSL or <u>69.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Mosier-Werner</u> Slot size: <u>0.010</u> in. Slotted length: <u>20.0</u> ft.
G. Filter pack, top <u>282.5</u> ft. MSL or <u>24.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>282.5</u> ft. MSL or <u>29.0</u> ft.	
I. Well screen, bottom <u>262.5</u> ft. MSL or <u>99.0</u> ft.	
J. Filter pack, bottom <u>261.5</u> ft. MSL or <u>100.0</u> ft.	
K. Borehole, bottom <u>250.5</u> ft. MSL or <u>111.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.50</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P. J. Beland Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

APPENDIX C - 1
WELL DETAIL INFORMATION SHEET

JOB NO. OB-P No. 65283
BORING NO. NAN 8101 A
DATE 2-9-82
CHIEF R.F. Sarko and Associates, Inc.
LOCATION New Acid Area - Synthetic Acid Plant

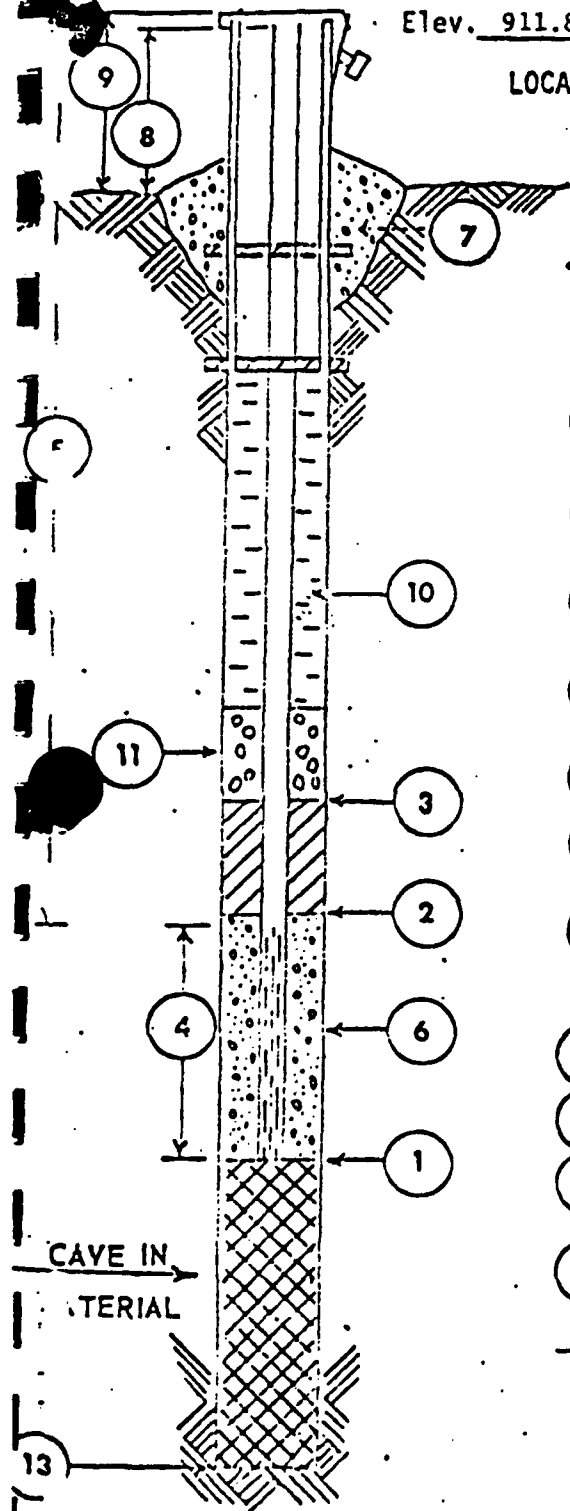
Elev. 911.82

All depth measurements of well detail to be from ground surface.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 141.50 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 126.50 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 0.00 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 10.0 FEET. 10.0 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 135.05 FEET
@ 4.0 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP. ☒ YES ☐ NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 3.50 FEET.
- 9 PROTECTIVE CASING? ☒ YES ☐ NO (Circle One)
HEIGHT ABOVE GROUND 3.50
LOCKING CAP? ☒ YES ☐ NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite
- 11 THICKNESS OF GRAVEL PACK 0 FEET.
- 12 DEPTH TO FIRST COUPLING 15.0 FEET (TOC)
COUPLING INTERVAL 20.0 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 143.00 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
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Stabilized			131.50	780.32
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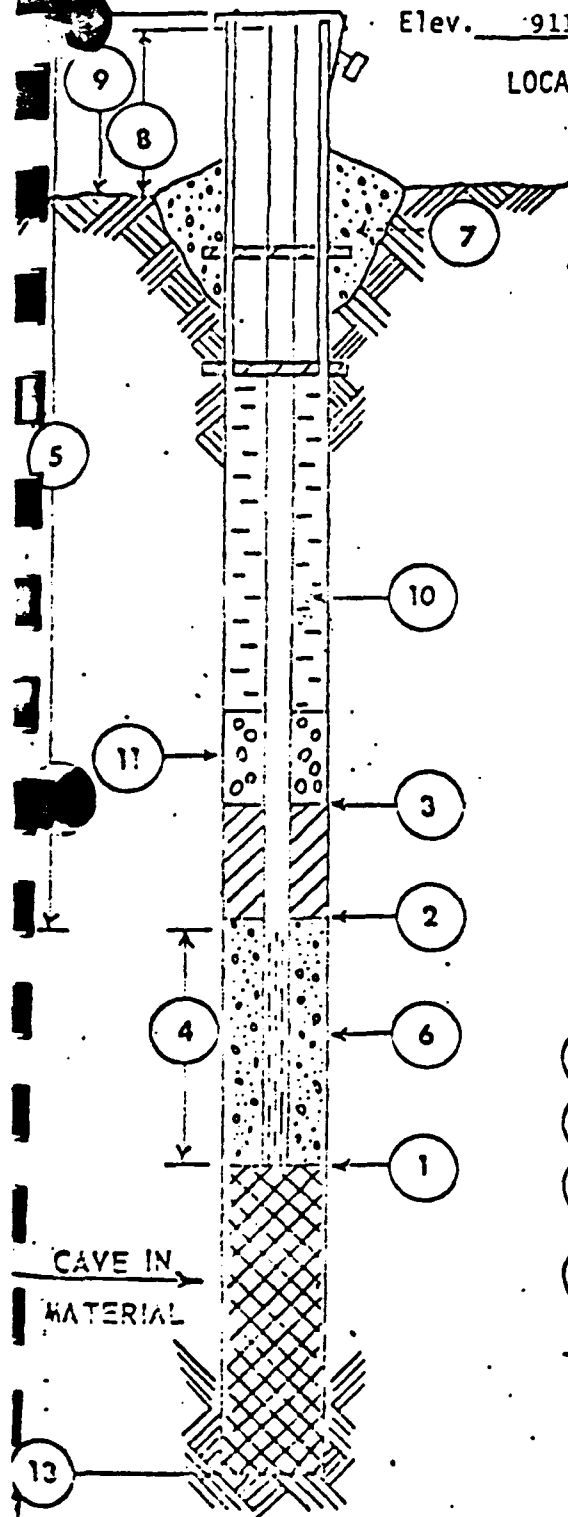
R.F. SARKO AND ASSOCIATES, INC.
Consulting Engineers
104 King Street
Madison, Wisconsin 53703

APPENDIX C - 2
WELL DETAIL INFORMATION SHEET

JOB NO. OB-P No. 65283
BORING NO. NAN 8101 D
DATE 2-9-82
CHIEF R.F. Sarko and Associates, Inc.
LOCATION New Acid Area - Synthetic Acid Plant

Elev. 911.72

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 166.50 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 156.50 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 0.00 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 5.0 FEET. 5.0 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 164.00 FEET @ 4.0 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP. ☒ YES ☐ NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.50 FEET.
- 9 PROTECTIVE CASING? ☒ YES ☐ NO (Circle One)
HEIGHT ABOVE GROUND 2.50
LOCKING CAP? ☒ YES ☐ NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite
- 11 THICKNESS OF GRAVEL PACK 0.0 FEET.
- 12 DEPTH TO FIRST COUPLING 4.0 FEET (TCC)
COUPLING INTERVAL 10.0 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 172.00 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
Stabilized			155.75	Piezometer

R.F. SARKO AND ASSOCIATES, INC.
Consulting Engineers
104 King Street
Madison, Wisconsin 53703

APPENDIX C - 3

WELL D: OIL INFORMATION SHEET

JOB NO. OB-P No. 65283

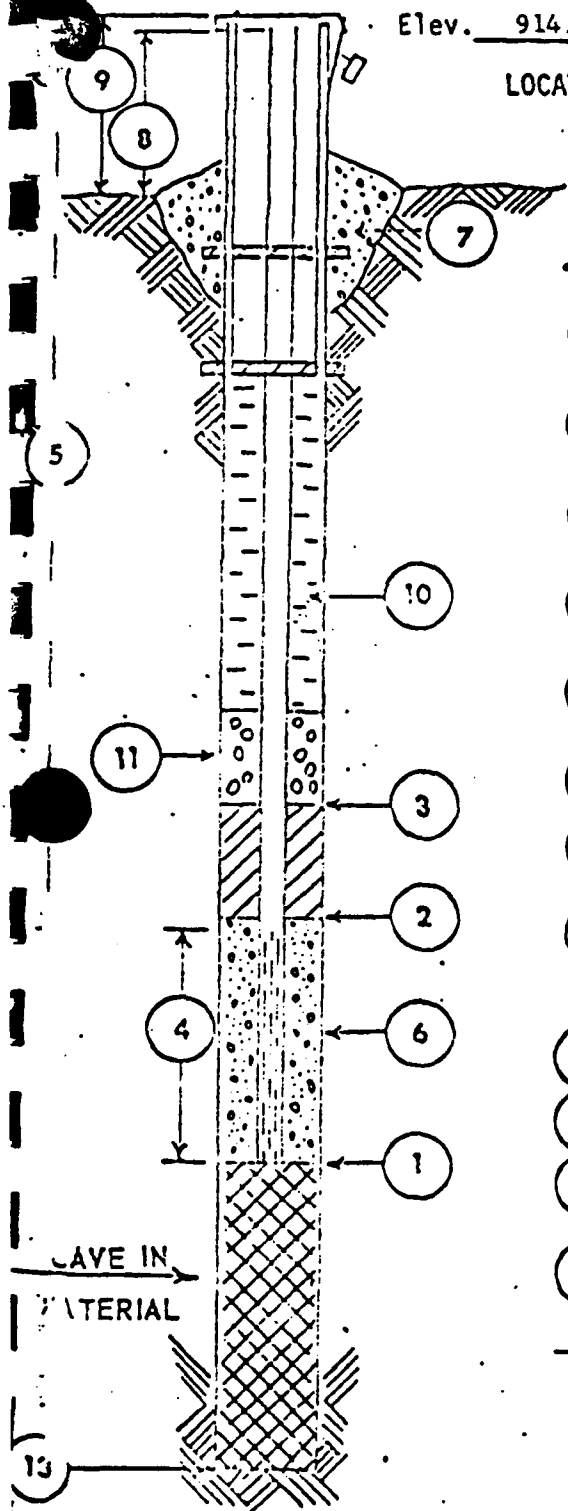
BORING NO. NAM 8102 B

DATE 2-9-82

CHIEF R.F. Sarko and Associates, Inc.

LOCATION New Acid Area - Synthetic Acid Plant

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 145.00 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
130.00 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
0.00 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
10.0 FEET. 10.0 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 137.00 FEET
@ 4" IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.0 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.0
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite
- 11 THICKNESS OF GRAVEL PACK 0.0 FEET.
- 12 DEPTH TO FIRST COUPLING 7.00 FEET (TOC)
COUPLING INTERVAL 10.0 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 149.00 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
Stabilized			134.38	780.16

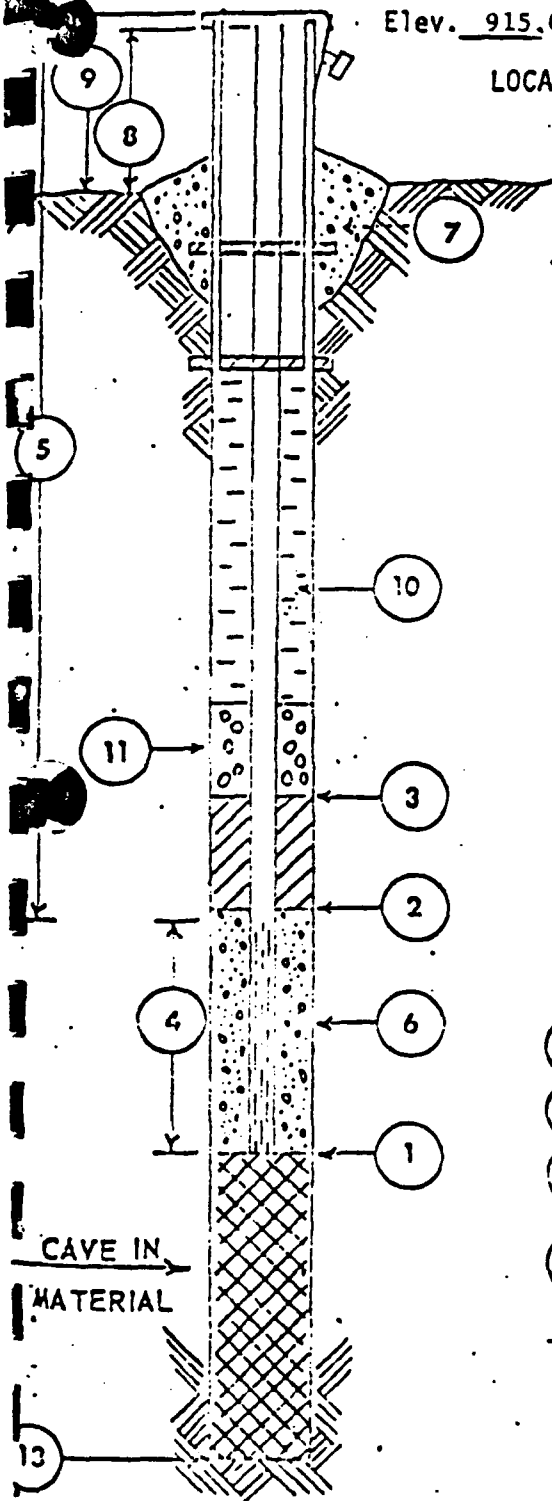
R.F. SARKO AND ASSOCIATES, INC.
Consulting Engineers
104 King Street
Madison, Wisconsin 53703

APPENDIX C - 4
WELL DETAIL INFORMATION SHEET

JOB NO. OR-P No. 65283
BORING NO. NAN 8103 R
DATE 2-9-82
CHIEF R. F. Sarko and Associates, Inc.
LOCATION New Acid Area - Synthetic Acid Plant

Elev. 915.06

All depth measurements of well detail to be from ground surface.



- 015-21
137.00
7-27-82
- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 145.00 FEET.
 - 2 DEPTH OF BOTTOM OF SEAL (if installed) 130.00 FEET.
 - 3 DEPTH TO TOP OF SEAL (if installed) 0.00 FEET.
 - 4 LENGTH OF PVC WELL SCREEN, 10.00 FEET. 10.00 FEET SLOTTED
 - 5 TOTAL LENGTH OF PIPE 137.00 FEET @ 4.0 IN. DIAMETER.
 - 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
 - 7 CONCRETE CAP. ☒ YES ☐ NO (Circle One)
 - 8 HEIGHT OF WELL CASING ABOVE GROUND 2.0 FEET.
 - 9 PROTECTIVE CASING? ☒ YES ☐ NO (Circle One)
HEIGHT ABOVE GROUND 2.0
LOCKING CAP? ☒ YES ☐ NO (Circle One)
 - 10 TYPE OF BACKFILL: Bentonite
 - 11 THICKNESS OF GRAVEL PACK 0.0 FEET.
 - 12 DEPTH TO FIRST COUPLING 17.0 FEET (TOC)
COUPLING INTERVAL 20.0 FEET.
 - 13 TOTAL DEPTH OF BOREHOLE 149.00 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
Stabilized			135.00	780.06

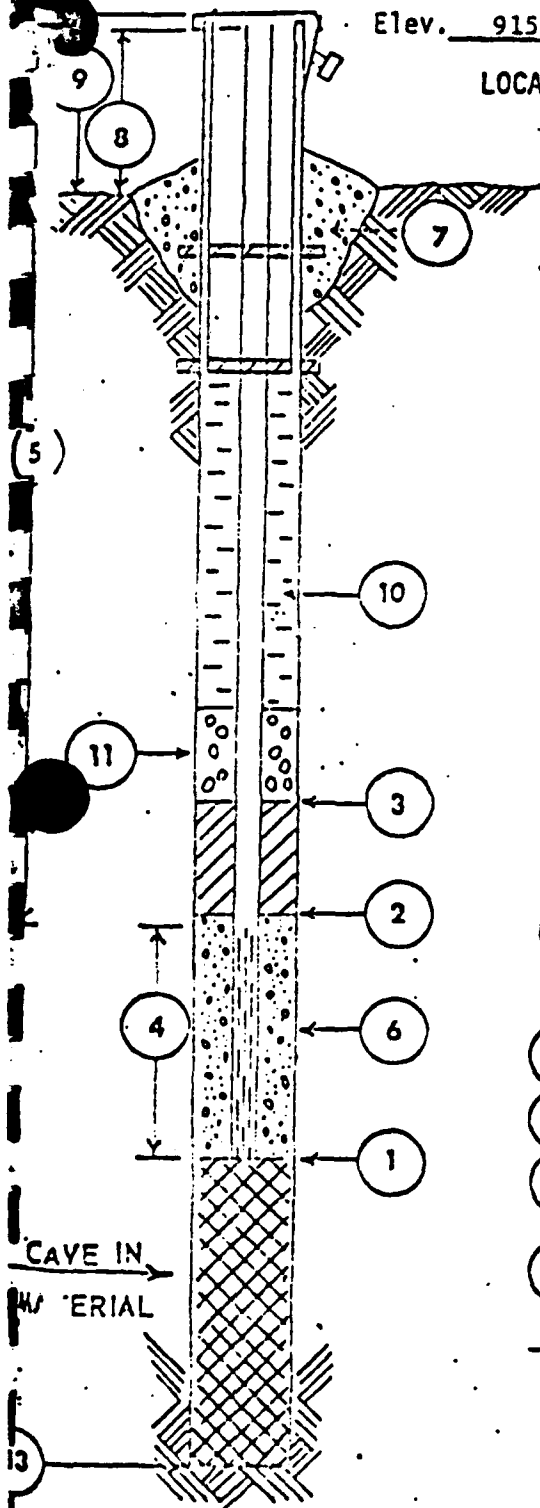
R.F. SARKO AND ASSOCIATES, INC.
Consulting Engineers
104 King Street
Madison, Wisconsin 53703

APPENDIX C - 5

WELL DET. INFORMATION SHEET

JOB NO. OB-P No. 65283BORING NO. NAN 8103 CDATE 2-9-82CHIEF R. F. Sarko and Associates, Inc.LOCATION New Acid Area - Synthetic Acid PlantElev. 915.11

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 170.83 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 160.83 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 0.00 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 5.0 FEET. 5.0 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 167.79 FEET @ 4.0 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 1.96 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 1.96
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite
- 11 THICKNESS OF GRAVEL PACK 0.0 FEET.
- 12 DEPTH TO FIRST COUPLING 7.5 FEET (TOC)
COUPLING INTERVAL 10.0 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 174.00 FEET.

BORING # | DATE | TIME | DEPTH TO WATER | ELEVATION

Stabilized

134.66

Piezometer

F. SARKO AND ASSOCIATES, INC.
Consulting Engineers
104 King Street
Madison, Wisconsin 53703

APPENDIX C - 6

WELL DETAIL INFORMATION SHEET

Elev. 925.11

JOB NO. OB-P No. 65283

BORING NO. NAN 8104 B

DATE 2-9-82

CHIEF R.F. Sarko and Associates, Inc.

LOCATION New Acid Area - Synthetic Acid Plant

All depth measurements of well detail to be from ground surface.

Riser Elev.
925.91
147.75
778.00
-5

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 154.85 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 139.85 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 0.00 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 10.0 FEET. 10.0 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 147.85 FEET
Ø 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 3.0 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 3.0
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite
- 11 THICKNESS OF GRAVEL PACK 0.0 FEET.
- 12 DEPTH TO FIRST COUPLING 7.85 FEET (TOC)
COUPLING INTERVAL 20.0 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 161.0 FEET.

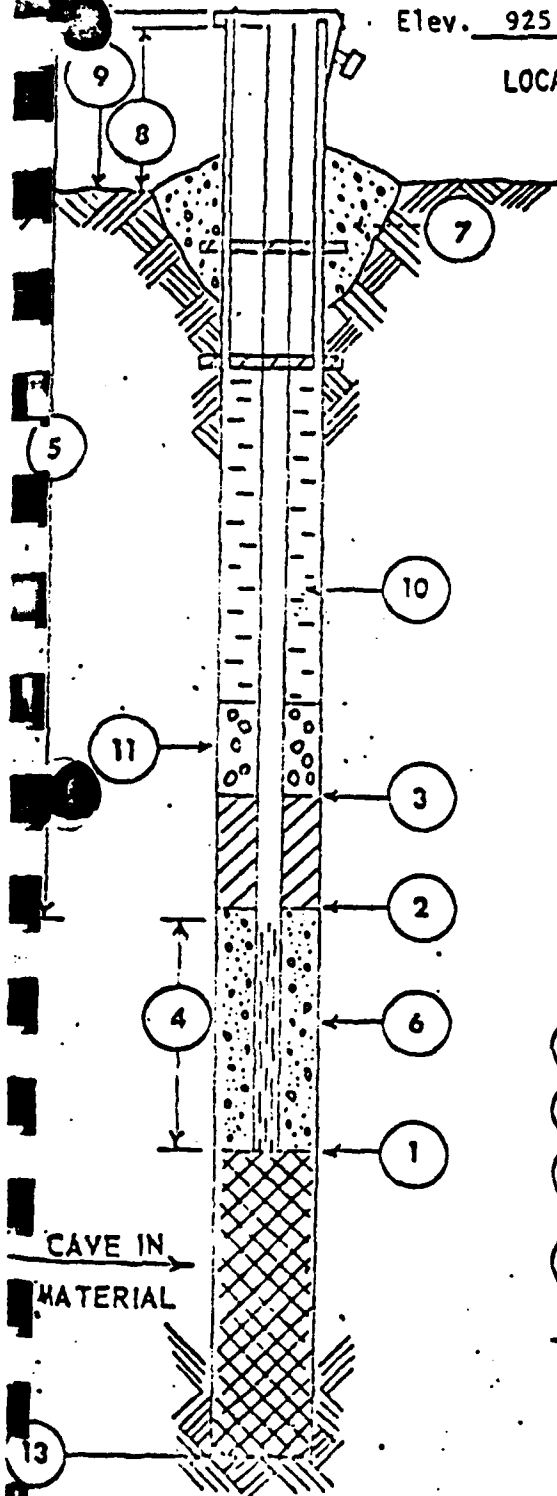
BORING # | DATE | TIME | DEPTH TO WATER | GROUNDWATER ELEVATION

Stabilized

145.00

780.11

R.F. SARKO AND ASSOCIATES, INC.
Consulting Engineers
104 King Street
Madison, Wisconsin 53703



APPENDIX C - 7
 ALL DET INFORMATION SHEET

JOB NO. OB-P No. 65283
 BORING NO. NAN 8104 C
 DATE 2-9-82
 CHIEF R.F. Sarko and Associates, Inc.
 LOCATION New Acid Area - Synthetic Acid Plant

Elev. 924.80

All depth measurements of well detail to be from ground surface.

Riser ³ 925.25
 -172.15

1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 175.17 FEET.

2 DEPTH OF BOTTOM OF SEAL (if installed) 165.17 FEET.

3 DEPTH TO TOP OF SEAL (if installed) 0.00 FEET.

4 LENGTH OF PVC WELL SCREEN, 5.0 FEET. 5.0 FEET SLOTTED

5 TOTAL LENGTH OF PIPE 172.17 FEET
 @ 4.0 IN. DIAMETER.

6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.

7 CONCRETE CAP. YES NO (Circle One)

8 HEIGHT OF WELL CASING ABOVE GROUND 2.0 FEET.

9 PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.0

LOCKING CAP? YES NO (Circle One)

10 TYPE OF BACKFILL: Bentonite

11 THICKNESS OF GRAVEL PACK 0.0 FEET.

12 DEPTH TO FIRST COUPLING 2.17 FEET (TOC)
 COUPLING INTERVAL 10.00 FEET.

13 TOTAL DEPTH OF BOREHOLE 178.00 FEET.

BORING # | DATE | TIME | DEPTH TO WATER | GROUNDWATER ELEVATION

Stabilized

144.58

Piezometer

R.F. SARKO AND ASSOCIATES, INC.
 Consulting Engineers -
 104 King Street.
 Madison, Wisconsin 53703

Facility/Project Name <u>Badger Army Ammunition Plant</u>		Grid Location <u>4806, 289.5</u> ⁷ / _{ft} <input checked="" type="checkbox"/> N <input type="checkbox"/> S		Well Name <u>OPM-89-03</u>	
Facility License, Permit or Monitoring Number		<u>278,932.9</u> ⁷ / _{ft} <input type="checkbox"/> E <input type="checkbox"/> W		Wis. Unique Well Number DNR Well Number	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Section Location ____ 1/4 of ____ 1/4 of Section ____		Date Well Installed <u>11/11/89</u> m m d d y y	
Distance Well Is From Waste/Source Boundary <u>N/A</u> ft.		T ____ N, R ____ <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) <u>Nadia Glucksberg / E.C. Jordan Co.</u>	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input checked="" type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

A. Protective pipe, top elevation 929.28 ft. MSL

B. Well casing, top elevation 929.25 ft. MSL

C. Land surface elevation 928.2 ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:

☐ GP ☒ GM ☐ GC ☐ GW ☐ SW ☒ SP

☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH

☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

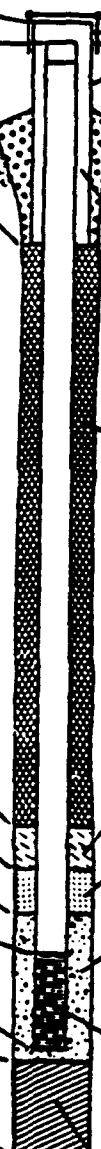
14. Drilling method used: Rotary ☒ 50
Hollow Stem Auger ☐ 41
Drill through casing Other ☐ _____

15. Drilling fluid used: Water ☐ 02 Air ☒ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 6.00
b. Length: 2.00
c. Material: Steel ☒ 04
Other ☐ _____
d. Additional protection? ☒ Yes ☐ No
If yes, describe: 4 bucking posts

3. Surface seal: Bentonite ☐ 30
Concrete ☐ 01
Other ☒ GROUT

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☐ _____
Other ☐ _____

5. Annular space seal: Granular Bentonite ☐ 3
Lbs/gal mud weight ... Bentonite-sand slurry ☐ 3
Lbs/gal mud weight ... Bentonite slurry ☐ 3
5 % Bentonite ... Bentonite-cement grout ☒ 50
350 gal volume added for any of the above
How installed: Tremie ☐ 06
Tremie pumped ☒ 02
Gravity ☐ 00

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
Other ☐ _____

7. Fine sand material: Manufacturer, product name and mesh size
N/A
Volume added N/A ft³

8. Filter pack material: Manufacturer, product name and mesh size
Mercer Warner Specialty Filter Sands
Volume added 2.28 ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 2.2
Flush threaded PVC schedule 80 ☒ 2.2
Other ☐ _____

10. Screen material: Schedule 80 PVC
Screen type: Factory cut ☒ 111
Continuous slot ☐ 0.0
Other ☐ _____
Manufacturer MonoFlex
Slot size: 0.010 in.
Slotted length: 20 ft

11. Backfill material (below filter pack): None ☒ _____
Other ☐ _____

E. Bentonite seal, top 276.2 ft. MSL or 132.0 ft.

F. Fine sand, top N/A ft. MSL or N/A ft.

G. Filter pack, top 291.2 ft. MSL or 132.0 ft.

H. Well screen, top 285.2 ft. MSL or 142.5 ft.

I. Well screen, bottom 265.7 ft. MSL or 162.5 ft.

J. Filter pack, bottom 265.7 ft. MSL or 162.5 ft.

K. Borehole, bottom 265.7 ft. MSL or 162.5 ft.

L. Borehole, diameter 9.5 in.

M. O.D. well casing 4.50 in.

N. I.D. well casing 4.00 in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul J. Bol Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bader Army Ammunitions Plant</u>	Grid Location <u>4, 806, 528.0</u> <u>M</u> <input checked="" type="checkbox"/> N <input type="checkbox"/> S <u>229, 241.0</u> <u>E</u> <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Name <u>OPM-89-02</u>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number <u> </u> DNR Well Number <u> </u>
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of <u> </u> 1/4 of Section <u> </u> T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed <u>1/10/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input checked="" type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Nadia Glucksberg / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>822.61</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>822.46</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> <u> </u>
C. Land surface elevation <u>822.6</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing Posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> <u>GROUT</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u> </u> Other <input checked="" type="checkbox"/> <u>GROUT</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>210 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Through Casing</u> Other <input type="checkbox"/> <u> </u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/> <u> </u>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u> </u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Mecum Warner, Specialty Filter Sands</u> Volume added <u>28</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> <u> </u>
E. Bentonite seal, top <u>794.6</u> ft. MSL or <u>83.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> <u> </u>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Mecum Warner</u> Slot size: <u>0.010</u> in. Slotted length: <u>20.0</u> ft.
G. Filter pack, top <u>789.6</u> ft. MSL or <u>88.0</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/> <u> </u>
H. Well screen, top <u>784.6</u> ft. MSL or <u>93.0</u> ft.	
I. Well screen, bottom <u>764.6</u> ft. MSL or <u>113.0</u> ft.	
J. Filter pack, bottom <u>764.6</u> ft. MSL or <u>113.0</u> ft.	
K. Borehole, bottom <u>759.6</u> ft. MSL or <u>118.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.50</u> in.	
N. I.D. well casing <u>4.00</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul J. Bol Firm E.C. Jordan Co.

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Facility/Project Name <u>Bader Army Ammunition Plant</u>		Grid Location <u>4,806,289.5</u> ⁷ / ₄ <input checked="" type="checkbox"/> N <input type="checkbox"/> S <u>278,932.9</u> ⁷ / ₄ <input checked="" type="checkbox"/> E <input type="checkbox"/> W		Well Name <u>OPM-89-03</u>	
Facility License, Permit or Monitoring Number				Wis. Unique Well Number DNR Well Num	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Section Location ____ 1/4 of ____ 1/4 of Section ____ T ____ N, R ____ <input type="checkbox"/> E <input type="checkbox"/> W		Date Well Installed <u>11/11/89</u> m m d d y y	
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input checked="" type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and Firm) <u>Nadia Glucksberg / E.C. Jordan Co.</u>	
Is Well A Point of Enforcement Sid. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

<p>A. Protective pipe, top elevation <u>929.92</u> ft. MSL</p> <p>B. Well casing, top elevation <u>929.25</u> ft. MSL</p> <p>C. Land surface elevation <u>928.2</u> ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen:</p> <p><input type="checkbox"/> GP <input checked="" type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP</p> <p><input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH</p> <p><input type="checkbox"/> Bedrock</p> </div> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill through casing</u> Other <input type="checkbox"/> _____</p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): <u>P.W. #2</u></p>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>2.0</u> c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> _____</p> <p>d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u></p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 <u>Grout</u> Other <input checked="" type="checkbox"/> _____</p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3 Annular space seal <input type="checkbox"/> _____ <u>Grout</u> Other <input checked="" type="checkbox"/> _____</p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> _____ Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> _____ <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>350 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 0</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/> _____</p> <p>7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft³</p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>Mercer Warner Specialty Filter Sands</u> Volume added <u>2.8</u> ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 22 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> _____</p> <p>10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/> _____</p> <p>Manufacturer <u>MemoFlex</u> Slot size: <u>0.010</u> in. Slotted length: <u>20</u> ft.</p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> _____ Other <input type="checkbox"/> _____</p>
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<p>E. Bentonite seal, top <u>296.2</u> ft. MSL or <u>132.0</u> ft.</p> <p>F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.</p> <p>G. Filter pack, top <u>291.2</u> ft. MSL or <u>132.0</u> ft.</p> <p>H. Well screen, top <u>285.2</u> ft. MSL or <u>142.5</u> ft.</p> <p>I. Well screen, bottom <u>265.7</u> ft. MSL or <u>162.5</u> ft.</p> <p>J. Filter pack, bottom <u>265.7</u> ft. MSL or <u>162.5</u> ft.</p> <p>K. Borehole, bottom <u>265.7</u> ft. MSL or <u>162.5</u> ft.</p> <p>L. Borehole, diameter <u>9.5</u> in.</p> <p>M. O.D. well casing <u>4.50</u> in.</p> <p>N. I.D. well casing <u>4.00</u> in.</p>	
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul J. Bal Firm E.C. Jordan Co.

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ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name QAM-91-01
Facility License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location SE 1/4 of NE 1/4 of Section 3	Date Well Installed 10/27/91 m m d d y y
Distance Well Is From Waste/Source Boundary ft.	T 10 N. R. 6 <input checked="" type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) C. RODRIGUEZ
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE ENVIRONMENTAL

A. Protective pipe, top elevation -877.17 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation -877.04 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 06.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>
C. Land surface elevation -875.1 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: TURNING POSTS + GRAV PAD
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 3.0 Concrete <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 3.0 Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3.0 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.0 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3.0 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 5.0 150 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0.1 Tremie pumped <input type="checkbox"/> 0.1 Gravity <input checked="" type="checkbox"/> 0.1
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3.0 <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 3.0 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size NONE
Describe _____	Volume added _____ ft ³
17. Source of water (attach analysis): PRODUCTION WELL #2	8. Filter pack material: Manufacturer, product name and mesh size CSSI SILICA SAND #4
	Volume added 24 ft ³
E. Bentonite seal, top -779.6 ft. MSL or 075.5 ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2.0 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 2.4 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	10. Screen material: SC4 80 4" DIAM PVC
G. Filter pack, top -775.1 ft. MSL or 080.0 ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/>
H. Well screen, top -789.4 ft. MSL or 085.5 ft.	Manufacturer MONOFLEX
I. Well screen, bottom -779.6 ft. MSL or 095.5 ft.	Slot size: 0.019 in.
J. Filter pack, bottom -775.1 ft. MSL or 100.0 ft.	Slot length: 01.9 ft.
K. Borehole, bottom -775.1 ft. MSL or 100.0 ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> Other <input type="checkbox"/>
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 04.25 in.	
N. I.D. well casing 03.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul R. Kuntz

Firm

ABB - ENVIRONMENTAL SERV.

Facility/Project Name <u>Bedger Army Ammunition Plant</u>		Grid Location <u>4,805,744.0</u> <u>276,076.2</u>		Well Name <u>OAM-89-01</u>	
Facility License, Permit or Monitoring Number <u>NA</u>		Section Location <u>1/4 of 1/4 of Section</u>		Date Well Installed <u>10/27/89</u>	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and Firm) <u>Nedie Gluckberg</u> <u>E.C. Jordan</u>	
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.		Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

A. Protective pipe, top elevation <u>824.42</u> ft. MSL B. Well casing, top elevation <u>824.38</u> ft. MSL C. Land surface elevation <u>822.2</u> ft. MSL D. Surface seal, bottom _____ ft. MSL or _____ ft.	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>2.0</u> c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking Posts</u> 3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u> 4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u> 5. Annular space seal: Granular Bentonite <input type="checkbox"/> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> <u>5</u> % Bentonite ... <u>200</u> gal volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input checked="" type="checkbox"/> Gravity <input type="checkbox"/> 6. Bentonite seal: Bentonite granules <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> Other <input type="checkbox"/> 7. Fine sand material: Manufacturer, product name and mesh size: <u>NA</u> Volume added <u>NA</u> ft ³ 8. Filter pack material: Manufacturer, product name and mesh size: <u>Mecamer Interior Specialty Filter Sands</u> Volume added <u>2.5</u> ft ³ 9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> Other <input type="checkbox"/> 10. Screen material: <u>Schedule 80 pipe</u> Screen type: Factory cut <input checked="" type="checkbox"/> Continuous slot <input type="checkbox"/> Other <input type="checkbox"/> Manufacturer <u>Mecamer</u> Slot size: <u>0.019</u> in. Slotted length: <u>80.0</u> in. 11. Backfill material (below filter pack): None <input type="checkbox"/> Other <input type="checkbox"/>
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12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☒ 41
 Other ☐

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top <u>802.3</u> ft. MSL or <u>20.0</u> ft. F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft. G. Filter pack, top <u>292.2</u> ft. MSL or <u>25.0</u> ft. H. Well screen, top <u>291.7</u> ft. MSL or <u>80.5</u> ft. I. Well screen, bottom <u>291.2</u> ft. MSL or <u>100.5</u> ft. J. Filter pack, bottom <u>291.7</u> ft. MSL or <u>100.5</u> ft. K. Borehole, bottom <u>290.2</u> ft. MSL or <u>102.0</u> ft. L. Borehole, diameter <u>9.5</u> in. M. O.D. well casing <u>4.50</u> in. N. I.D. well casing <u>4.00</u> in.
--

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature E.C. Jordan Firm E.C. Jordan

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Badger Army Ammunition Plant</u>	Grid Location <u>4,805,673.4</u> <u>296,115.5</u>	Well Name <u>OAM-89-02</u>
Facility License, Permit or Monitoring Number	<u>1</u> <u>N</u> <u>S</u> <u>2</u> <u>E</u> <u>W</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>10/30/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N, R <u>NA</u> <u>NA</u> E <u>NA</u> W	Well Installed By: (Person's Name and Firm) <u>Nadia Glucksberg</u> <u>E.C. Jordan</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>825.14</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>824.91</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>822.4</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking parts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 gal # volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size <u>Mercator Warring Specialty Filter Sands</u> Volume added <u>≈ 3.0</u> ft ³
17. Source of water (attach analysis): _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>802.4</u> ft. MSL or <u>70.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Mono Flex</u> Slot size: <u>0.010</u> in. Slotted length: <u>22.0</u> ft.
G. Filter pack, top <u>792.4</u> ft. MSL or <u>75.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Filter Sand</u> Other <input checked="" type="checkbox"/>
H. Well screen, top <u>792.4</u> ft. MSL or <u>50.0</u> ft.	
I. Well screen, bottom <u>772.4</u> ft. MSL or <u>100.0</u> ft.	
J. Filter pack, bottom <u>770.4</u> ft. MSL or <u>102.0</u> ft.	
K. Borehole, bottom <u>770.4</u> ft. MSL or <u>102.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.50</u> in.	
N. I.D. well casing <u>4.00</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature E.C. Jordan Firm E.C. Jordan

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Facility/Project Name <u>Badger Army Ammunition Plant</u>	Grid Location <u>4,805, 592.7</u> <u>26,061.9</u>	Well Name <u>FTM-89-01</u>
Facility License, Permit or Monitoring Number -----	<u>26,061.9</u>	Wis. Unique Well Number DNR Well Number -----
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section T N, R <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed <u>10/30/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Nadine Glucksberg/E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>-824.46</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>-824.21</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> b. Length: <u>2.0</u> c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
C. Land surface elevation <u>-822.4</u> ft. MSL	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
D. Surface seal, bottom ----- ft. MSL or ----- ft.	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>200 gals</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 32 Other <input type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	8. Filter pack material: Manufacturer, product name and mesh size <u>Marine Water Specialty Filter Sands</u> Volume added <u>29</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
Describe -----	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>pw #2</u>	Manufacturer <u>Monaflex</u> Slot size: <u>0.010</u> Slot length: <u>20.0</u>
E. Bentonite seal, top <u>-803.1</u> ft. MSL or <u>-69.3</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Filter Sand</u> Other <input checked="" type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	
G. Filter pack, top <u>-798.4</u> ft. MSL or <u>-74.0</u> ft.	
H. Well screen, top <u>-792.9</u> ft. MSL or <u>-79.5</u> ft.	
I. Well screen, bottom <u>-772.9</u> ft. MSL or <u>-99.5</u> ft.	
J. Filter pack, bottom <u>-772.4</u> ft. MSL or <u>-100.0</u> ft.	
K. Borehole, bottom <u>-769.4</u> ft. MSL or <u>-103.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.50</u> in.	
N. I.D. well casing <u>4.00</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P.L. Bol Firm E.C. Jordan Co.

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Agency/Project Name OLIN CORP. / BAAP	Local Grid Location of Well ft. N S ft. E W	Well Name PHM-9101
Utility License, Permit or Monitoring Number	Grid Origin Location Lat. _____ Long. _____ or _____	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	St. Plane _____ ft. N. _____ ft. E.	Date Well Installed 06/06/91 m m d d y y
Distance Well Is From Waste/Source Boundary UNKNOWN ft.	Section Location of Waste/Source 1/4 of 1/4 of Sec. 10 T. 10 N. R. 6 E. W.	Well Installed By: (Person's Name and Firm) JOHN WEEKS
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input checked="" type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	WTD

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 7.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation 0.0 ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: BUMPER POSTS
D. Surface seal, bottom _____ ft. MSL or 5.0 ft.	3. Surface seal: Bentonite <input checked="" type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input type="checkbox"/>
2. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input type="checkbox"/>
3. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular Bentonite <input type="checkbox"/> 33 b. _____ Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight ... Bentonite slurry <input checked="" type="checkbox"/> 31 d. _____ % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 50 e. 54 Ft ³ volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. UNIMIN GRANUSIL #120 b. Volume added 1.0 ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size a. RED FLINT SAND #30 b. Volume added 5.5 ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis):	10. Screen material: SCHEDULE 80 PVC a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
A. Bentonite seal, top _____ ft. MSL or _____ ft.	b. Manufacturer TIMCO c. Slot size: 0.010 in. d. Slotted length: 15.0 ft.
F. Fine sand, top _____ ft. MSL or 77.9 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> 14 Other <input type="checkbox"/>
G. Filter pack, top _____ ft. MSL or 79.9 ft.	
H. Screen joint, top _____ ft. MSL or 82.3 ft.	
I. Well bottom _____ ft. MSL or 97.5 ft.	
J. Filter pack, bottom _____ ft. MSL or 98.0 ft.	
K. Borehole, bottom _____ ft. MSL or 98.0 ft.	
L. Borehole, diameter 10.0 in.	
M. O.D. well casing 4.50 in.	
N. I.D. well casing 4.03 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **David J. Oles** Firm **Eder Associates**

Please complete both sides of this form and return to the appropriate DNR office listed at the top of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Ad. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$50,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BADGER AAP	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PBN-91-01C
Factory License, Permit or Monitoring Number _____	Section Location _____ 1/4 of _____ 1/4 of Section _____ T. _____ N. R. _____ <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Unique Well Number _____ DNK Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Distance Well Is From Waste/Source Boundary NA ft.	Date Well Installed 10/31/91 m m d d y y
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and firm) A. Rodriguez - Driller Layne Environmental

A. Protective pipe, top elevation - 830.73 ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation - 830.04 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 b. Length: 06.0 c. Material: Steel <input checked="" type="checkbox"/> 0- Other <input type="checkbox"/>
C. Land surface elevation - 828.0 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Buckling Post (4) GRAPES
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 3- Concrete <input checked="" type="checkbox"/> Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 2- Annular space seal <input type="checkbox"/> Cement - Bentonite Grout Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 3- _____ Lbs/gal mud weight ... Bentonite-sand slurry _____ Lbs/gal mud weight ... Bentonite slurry 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 5- _____ Ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> 0- Gravity <input checked="" type="checkbox"/> 0-
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Dual Wall Rev. Circ. Hammer Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3- Bentonite Slurry Other <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh None Volume added _____ ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh CSSI #4 Volume added _____ ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2- Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 2- Other <input type="checkbox"/>
17. Source of water (attach analysis): Production Well #2 - BAAP	10. Screen material: PVC SCH 80 Screen type: Factory cut <input checked="" type="checkbox"/> 1- Continuous slot <input type="checkbox"/> 0- Other <input type="checkbox"/>
E. Bentonite seal, top - 718.0 ft. MSL or 116.0 ft.	Manufacturer PROFLEX Slot size: 0.010 Slot length: 10.0
F. Fine sand, top _____ ft. MSL or N/A ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Native sand Other <input type="checkbox"/>
G. Filter pack, top - 798.0 ft. MSL or 130.0 ft.	
H. Well screen, top - 685.5 ft. MSL or 142.5 ft.	
I. Well screen, bottom - 675.5 ft. MSL or 152.5 ft.	
J. Filter pack, bottom - 675.5 ft. MSL or 152.5 ft.	
K. Borehole, bottom - 668.0 ft. MSL or 160.0 ft.	
L. Borehole, diameter - 9.0 in.	
M. O.D. well casing - 4.25 in.	
N. I.D. well casing - 3.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Rod L. Ruster** Firm **ABB-ES**

Facility/Project Name <u>BAAP RI/FS</u>	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>PBW- 91-02B</u>
Facility License, Permit or Monitoring Number _____	_____	WIS. Unique Well Number _____ DNK Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of _____ 1/4 of Section _____ T _____ N, R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Date Well installed <u>02/28/91</u> m m d d y y
Distance Well is From Waste/Source Boundary <u>NA</u> ft.	Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well installed By: (Person's Name and Firm) <u>Act Radolgy</u> <u>Layne Environmental</u>
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>821.36</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>821.20</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>6.5</u> ft. c. Material: <input type="checkbox"/> Steel <input type="checkbox"/> 04 <input type="checkbox"/> Other <input type="checkbox"/> --
C. Land surface elevation <u>819.0</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Gravel pad + Boring Bats</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: <input type="checkbox"/> Bentonite <input type="checkbox"/> 30 <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> 01 <input type="checkbox"/> Other <input type="checkbox"/> --
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: <input type="checkbox"/> Bentonite <input type="checkbox"/> 30 <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> <input type="checkbox"/> Other <input type="checkbox"/> --
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> 35 <input type="checkbox"/> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <input type="checkbox"/> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>42</u> Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Deal well course circle</u> Other <input checked="" type="checkbox"/>	How installed: <input type="checkbox"/> Tremie <input type="checkbox"/> 01 <input type="checkbox"/> Tremie pumped <input type="checkbox"/> 02 <input checked="" type="checkbox"/> Gravity <input type="checkbox"/> 03
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: <input type="checkbox"/> Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>20' Bentonite Slurry</u> Other <input type="checkbox"/> --
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>None</u> Volume added _____ ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size <u>CSS1 Silica Sand</u> Volume added _____ ft ³
17. Source of water (attach analysis): <u>PW # 2</u>	9. Well casing: <input type="checkbox"/> Flush threaded PVC schedule 40 <input type="checkbox"/> 23 <input checked="" type="checkbox"/> Flush threaded PVC schedule 30 <input type="checkbox"/> 24 <input type="checkbox"/> Other <input type="checkbox"/> --
E. Bentonite seal, top <u>741.0</u> ft. MSL or <u>78.0</u> ft.	10. Screen material: <u>PVC schedule 80</u> Screen type: <input checked="" type="checkbox"/> Factory cut <input type="checkbox"/> 11 <input type="checkbox"/> Continuous slot <input type="checkbox"/> 01 <input type="checkbox"/> Other <input type="checkbox"/> --
F. Fine sand, top _____ ft. MSL or _____ ft.	Manufacturer <u>MonaFlex, Inc</u> Slot size: <u>0.010</u> in. Slot length: <u>10.0</u> ft.
G. Filter pack, top <u>720.9</u> ft. MSL or <u>98.1</u> ft.	11. Backfill material (below filter pack): <input checked="" type="checkbox"/> None <input type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>714.0</u> ft. MSL or <u>105.0</u> ft.	
I. Well screen, bottom <u>704.0</u> ft. MSL or <u>115.0</u> ft.	
J. Filter pack, bottom <u>704.0</u> ft. MSL or <u>115.0</u> ft.	
K. Borehole, bottom <u>704.0</u> ft. MSL or <u>115.0</u> ft.	
L. Borehole, diameter <u>1.0</u> in.	
M. O.D. well casing <u>4.25</u> in.	
N. I.D. well casing <u>3.75</u> (4.25) in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul R. Webb

Firm

ATSB-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name <u>BAA P RI/ES</u>		Grid Location _____ ft <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>PBU-91-02C</u>	
Facility License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed <u>2 9 / 3 2 / 9 1</u> m m d d y y	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Distance Well is From Water Source Boundary <u>NA</u> ft		Well installed By: (Person's Name and Firm) <u>Act Rodriguez</u> <u>Layne Environmental</u>	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well relative to Water Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

A. Protective pipe, top elevation 822.02 ft. MSL

B. Well casing, top elevation 821.92 ft. MSL

C. Land surface elevation 819.9 ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:

☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☐ 41
Real well Reverse Circulation Other ☒ _____

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top 709.9 ft. MSL or 110.2 ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top 688.9 ft. MSL or 13.1.0 ft.

H. Well screen, top 668.6 ft. MSL or 15.1.3 ft.

I. Well screen, bottom 658.6 ft. MSL or 16.1.3 ft.

J. Filter pack, bottom 658.6 ft. MSL or 16.1.3 ft.

K. Borehole, bottom 658.6 ft. MSL or 16.1.3 ft.

L. Borehole, diameter 1.0 in.

M. O.D. well casing 4.35 in.

N. I.D. well casing 3.75 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
 a. Inside diameter: 6.0 in.
 b. Length: 6.0 ft.
 c. Material: Steel ☒ 04
 Other ☐ _____

d. Additional protection? ☒ Yes ☐ No
 If yes, describe: Gravel Pad + Boring Pad

3. Surface seal: Bentonite ☐ 30
 Concrete ☒ 01
 Other ☐ _____

4. Material between well casing and protective pipe:
 Bentonite ☐ 30
 Annular space seal ☒ _____
 Other ☐ _____

5. Annular space seal: Granular Bentonite ☐ 33
 Lbs/gal mud weight ... Bentonite-sand slurry ☐ 15
 Lbs/gal mud weight ... Bentonite slurry ☐ _____
5 % Bentonite ... Bentonite-cement grout ☒ 50
64 Ft.³ volume added for any of the above
 How installed: Tremie ☐ _____
 Tremie pumped ☐ _____
 Gravity ☒ 03

6. Bentonite seal: Bentonite granules ☐ _____
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ _____
20' Bentonite slurry Other ☒ _____

7. Fine sand material: Manufacturer, product name and mesh size
None
 Volume added _____ ft.³

8. Filter pack material: Manufacturer, product name and mesh size
CSSI Silica Sand
 Volume added _____ ft.³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
 Flush threaded PVC schedule 30 ☒ _____
 Other ☐ _____

10. Screen material: PVC schedule 90
 Screen type: Factory cut ☒ 11
 Continuous slot ☐ _____
 Other ☐ _____

Manufacturer Monoflex, Inc.
 Slot size: 0.075
 Slotted length: 12.0

11. Backfill material (below filter pack): None ☒ _____
 Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul R. Rando

Firm

ABB - ES

Facility/Project Name <u>BHAP</u>		Grid Location _____ ft <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>PRU-91-033</u>	
Facility License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed <u>09/26/91</u>	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Distance Well is From Waste/Source Boundary <u>N/A</u> ft		Well installed By: (Person's Name and firm) <u>Art Rodriguez</u> <u>Laure Environmental</u>	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

A. Protective pipe, top elevation <u>814.89</u> ft MSL B. Well casing, top elevation <u>814.72</u> ft MSL C. Land surface elevation <u>812.7</u> ft MSL D. Surface seal, bottom _____ ft MSL or _____ ft 12. USCS classification of soil near screen: <input type="checkbox"/> GP <input checked="" type="checkbox"/> GM <input type="checkbox"/> CC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock 13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Wall Reverse Circulation</u> <input checked="" type="checkbox"/> Other <input type="checkbox"/> 15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99 16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____ 17. Source of water (attach analysis): <u>PW # 2</u>	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Protective cover pipe: a. Inside diameter: <u>6.2</u> in. b. Length: <u>6.0</u> ft c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 Bucking Post</u> <u>GRAVEL PAD</u> 3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input type="checkbox"/> 4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/> 5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>374.97</u> Ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03 6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>20' Bentonite Slurry</u> Other <input type="checkbox"/> 7. Fine sand material: Manufacturer, product name and mesh size <u>none</u> Volume added _____ ft ³ 8. Filter pack material: Manufacturer, product name and mesh size <u>CSSI Silica Sand</u> Volume added _____ ft ³ 9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> 10. Screen material: <u>PVC Schedule 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> Manufacturer <u>Monoflex, Inc.</u> Slot size: <u>0.010</u> in. Slotted length: <u>10.0</u> ft. 11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
--	--

E. Bentonite seal, top <u>744.7</u> ft MSL or <u>68</u> ft F. Fine sand, top _____ ft MSL or _____ ft G. Filter pack, top <u>724.7</u> ft MSL or <u>88</u> ft H. Well screen, top <u>716.7</u> ft MSL or <u>96</u> ft I. Well screen, bottom <u>706.7</u> ft MSL or <u>106.1</u> ft J. Filter pack, bottom <u>706.7</u> ft MSL or <u>106.1</u> ft K. Borehole, bottom <u>706.7</u> ft MSL or <u>106.1</u> ft L. Borehole, diameter <u>9.0</u> in. M. O.D. well casing <u>4.25</u> in. <u>3.75</u> in. N. I.D. well casing <u>4.4</u> in.	
--	--

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul T. ...

Firm

ATIS-ES

Factory/Project Name 3AAP		Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name PBW-71-33C	
Factory License, Permit or Monitoring Number				Well Unique Well Number UNK Well Nur	
Type of Well: Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Section Location 1/4 of 1/4 of Section		Date Well installed 09/29/96	
Distance Well is From Waste/Source Boundary NA ft.		T <input type="checkbox"/> N. R <input type="checkbox"/> E <input type="checkbox"/> W		Well installed by: (Person's Name and firm) Act. R. R. R.	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Layne Environmental	

A. Protective pipe, top elevation **814.50** ft. MSL

B. Well casing, top elevation **814.37** ft. MSL

C. Land surface elevation **812.3** ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Dual Well Reverse Circulation Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top **704.3** ft. MSL or **108.0** ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top **684.2** ft. MSL or **128.1** ft.

H. Well screen, top **670.0** ft. MSL or **142.3** ft.

I. Well screen, bottom **660.0** ft. MSL or **152.3** ft.

J. Filter pack, bottom **660.0** ft. MSL or **152.3** ft.

K. Borehole, bottom **660.0** ft. MSL or **152.3** ft.

L. Borehole, diameter **9.0** in.

M. O.D. well casing **42.5** in.

N. I.D. well casing **3.75** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: **6.0**
b. Length: **6.0**
c. Material: Steel ☒ U-
Other ☐

d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30
Concrete ☐
Other ☐

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☒
Other ☐

5. Annular space seal: Granular Bentonite ☐ 33
Lbs/gal mud weight ... Bentonite-sand slurry
Lbs/gal mud weight ... Bentonite slurry
5 % Bentonite ... Bentonite-cement grout ☒ 50
64 Ft³ volume added for any of the above
How installed: Tremie ☐ 1
Tremie pumped ☐ 6
Gravity ☒ 08

6. Bentonite seal: Bentonite granules ☐ 3
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 3
20' Bentonite Slurry Other ☒

7. Fine sand material: Manufacturer, product name and mesh size
name
Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size
CS-1 Siliceous Sand
Volume added _____ ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 2
Other ☐

10. Screen material: **PVC schedule 80**
Screen type: Factory cut ☐ 1
Continuous slot ☐ 0
Other ☐

Manufacturer **Monoflex, Inc.**
Slot size: **0.019**
Slot length: **10.0**

11. Backfill material (below filter pack): None ☐
Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul R. R...

Firm

ABB-ES

Facility/Project Name <u>Solar Farm Ammoniation Plant</u>	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>PBM-90-010</u>
Facility License, Permit or Monitoring Number _____	_____	Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location _____ 1/4 of _____ 1/4 of Section _____ T _____ N. R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Date Well installed <u>08/25/90</u> m m d d y y
Distance Well Is From Waste/Source Boundary _____ ft.	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>J. Buss & E. C. Jordan</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: _____ ft. c. Material: _____ Steel <input checked="" type="checkbox"/> 0.1 Other <input type="checkbox"/> _____
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking Re-bar</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: _____ Bentonite <input type="checkbox"/> 3.0 Concrete <input type="checkbox"/> 0.1 Other <input checked="" type="checkbox"/> _____
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: _____ Bentonite <input type="checkbox"/> 3.0 Annular space seal <input type="checkbox"/> _____ Other <input checked="" type="checkbox"/> _____
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: _____ Granular Bentonite <input type="checkbox"/> 3.3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3.5 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3.1 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 5.0 <u>540 gal ft</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 5.0 Hollow Stem Auger <input type="checkbox"/> 4.1 <u>Dual Well Reverse Circulation</u> Other <input checked="" type="checkbox"/> _____	How installed: _____ Tremie <input type="checkbox"/> 0.1 Tremie pumped <input checked="" type="checkbox"/> 0.2 Gravity <input type="checkbox"/> 0.8
15. Drilling fluid used: Water <input type="checkbox"/> 0.2 Air <input checked="" type="checkbox"/> 0.1 Drilling Mud <input type="checkbox"/> 0.3 None <input type="checkbox"/> 9.9	6. Bentonite seal: _____ Bentonite granules <input type="checkbox"/> 3.3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3.2 <u>Bentonite Slurry</u> Other <input checked="" type="checkbox"/> _____
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size _____ Volume added _____ ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size <u>10-20 Graded Silica Sand (Graded Silica Sand Co.)</u> Volume added _____ ft ³
17. Source of water (attach analysis): <u>Production Well #2</u>	9. Well casing: _____ Flush threaded PVC schedule 40 <input type="checkbox"/> 2.3 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 2.4 Other <input type="checkbox"/> _____
E. Bentonite seal, top _____ ft. MSL or <u>180.0</u> ft.	10. Screen material: <u>Schedule 60 PVC</u> Screen type: _____ Factory cut <input checked="" type="checkbox"/> 1.1 Continuous slot <input type="checkbox"/> 0.1 Other <input type="checkbox"/> _____
F. Fine sand, top _____ ft. MSL or _____ ft.	Manufacturer <u>Drilling Equipment Supply Inc.</u> Slot size: _____ 0.010 in. Slotted length: _____ 12.0 ft.
G. Filter pack, top _____ ft. MSL or <u>185.0</u> ft.	11. Backfill material (below filter pack): _____ None <input type="checkbox"/> <u>Native cave</u> Other <input checked="" type="checkbox"/> _____
H. Well screen, top _____ ft. MSL or <u>200.5</u> ft.	
I. Well screen, bottom _____ ft. MSL or <u>210.5</u> ft.	
J. Filter pack, bottom _____ ft. MSL or <u>210.5</u> ft.	
K. Borehole, bottom _____ ft. MSL or <u>212.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.2</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature]

Firm E. C. Jordan

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance

Facility/Project Name
Super Army Ammunition Plant
Facility License/Permit or Monitoring Number

Grid Location
ft. ☐ N. ☐ S.
ft. ☐ E. ☐ W.

Well Name
PM-90-02D
Wis. Unique Well Number DNR Well Number

Type of Well Water Table Observation Well ☐ 11
Piezometer ☒ 12

Section Location
1/4 of 1/4 of Section

Date Well Installed
08/15/90
m m d d y y

Distance Well Is From Waste/Source Boundary
ft.

T N R ☐ E ☐ W

Well Installed By: (Person's Name and Firm)
Jim Buss - F.C. Jordan

Is Well A Point of Enforcement Sit. Application?
☐ Yes ☐ No

Location of Well Relative to Waste/Source
☐ Upgradient ☐ Sidegradient
☒ Downgradient ☐ Not Known

A. Protective pipe, top elevation _____ ft. MSL
B. Well casing, top elevation _____ ft. MSL
C. Land surface elevation _____ ft. MSL
D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
☒ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Drill Well Other ☒ _____

15. Drilling fluid used: Water ☐ 02 Air ☒ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW#2

Bentonite seal, top _____ ft. MSL or 124.0 ft.

Fine sand, top _____ ft. MSL or _____ ft.

Filter pack, top _____ ft. MSL or 122.0 ft.

Well screen, top _____ ft. MSL or 124.5 ft.

Well screen, bottom _____ ft. MSL or 204.5 ft.

Filter pack, bottom _____ ft. MSL or 204.5 ft.

Borehole, bottom _____ ft. MSL or 214.0 ft.

Borehole, diameter 2.5 in.

I.D. well casing 4.5 in.

O.D. well casing 4.0 in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: _____ in.
b. Length: _____ ft.
c. Material: Steel ☒ 04
Other ☐ _____

d. Additional protection? ☒ Yes ☐ No
If yes, describe: 4 bucking pipe

3. Surface seal: Bentonite ☐ 30
Concrete ☐ 1
Other ☒ _____

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☐ _____
Other ☒ _____

5. Annular space seal: Granular Bentonite ☐ 33
Lbs/gal mud weight ... Bentonite-sand slurry ☐ 3
Lbs/gal mud weight ... Bentonite slurry ☐ 1
5 % Bentonite ... Bentonite-cement grout ☒ 50
50 gal volume added for any of the above

How installed: Tremie ☐ 1
Tremie pumped ☒ 02
Gravity ☐ 0

6. Bentonite seal: Bentonite granules ☐ 3
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
Bentonite Slurry Other ☒ _____

7. Fine sand material: Manufacturer, product name and mesh size
Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size
Coloma Silica Sand, Coloma Silica Sand
Volume added _____ ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 2
Flush threaded PVC schedule 80 ☐ 2
Other ☐ _____

10. Screen material: Schedule 80 PVC
Screen type: Factory cut ☒ 1
Continuous slot ☐ 02
Other ☐ _____

Manufacturer Drilling Equipment Supply, Inc.
Slot size: _____ 0.010 in.
Slotted length: _____

11. Backfill material (below filter pack): None ☒ _____
Native sand Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Facility/Project Name
Bedar Arms Ammunition Plant
Facility License, Permit or Monitoring Number

Grid Location
_____ ft. ☐ N ☐ S
_____ ft. ☐ E ☐ W

Well Name
PBM-90-030
Wis. Unique Well Number _____ DNR Well Number _____

Type of Well Water Table Observation Well ☐ 11
Piezometer ☒ 12

Section Location
_____ 1/4 of _____ 1/4 of Section _____

Date Well Installed
05/12/90
m m d d y y

Distance Well Is From Waste/Source Boundary
_____ ft.
Is Well A Point of Enforcement Sta. Application?
☐ Yes ☐ No

T _____ N, R _____ ☐ E ☐ W
Location of Well Relative to Waste/Source
☐ Upgradient ☐ Sidegradient
☒ Downgradient ☐ Not Known

Well Installed By: (Person's Name and Firm)
Jim Bass - E. C. Jordan

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:

☒ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☐ No

14. Drilling method used: Rotary ☐ 50

Hollow Stem Auger ☐ 41

Auger Well Other ☒ _____

15. Drilling fluid used: Water ☐ 02 Air ☒ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):

PW #2

E. Bentonite seal, top _____ ft. MSL or 169.0 ft.

Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top _____ ft. MSL or 179.0 ft.

I. Well screen, top _____ ft. MSL or 189.5 ft.

Well screen, bottom _____ ft. MSL or 199.5 ft.

J. Filter pack, bottom _____ ft. MSL or 200.0 ft.

K. Borehole, bottom _____ ft. MSL or 205.0 ft.

L. Borehole, diameter 9.5 in.

M. O.D. well casing 4.5 in.

N. I.D. well casing 4.0 in.

1. Cap and lock? ☐ Yes ☐ No

2. Protective cover pipe:

a. Inside diameter: _____ in.

b. Length: _____ ft.

c. Material: Steel ☒ 04

Other ☐ _____

d. Additional protection? ☒ Yes ☐ No

If yes, describe: 4 bucking posts

3. Surface seal: Bentonite ☐ 30

Concrete ☐ 01

Other ☒ _____

4. Material between well casing and protective pipe:

Bentonite ☐ 30

Annular space seal ☐ _____

Other ☒ _____

5. Annular space seal: Granular Bentonite ☐ 33

Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35

Lbs/gal mud weight ... Bentonite slurry ☐ 31

5 % Bentonite ... Bentonite-cement grout ☒ 50

2 465 gal volume added for any of the above

How installed: Tremie ☐ 01

Tremie pumped ☒ 02

Gravity ☐ 03

6. Bentonite seal: Bentonite granules ☐ 33

☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32

bentonite slurry Other ☒ _____

7. Fine sand material: Manufacturer, product name and mesh size

Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size

Colorado Silica Sand Co. Colorado Silica Sand - 10-20

Volume added _____ ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23

Flush threaded PVC schedule 80 ☒ 24

Other ☐ _____

10. Screen material: Schedule 80 PVC

Screen type: Factory cut ☒ 11

Continuous slot ☐ 01

Other ☐ _____

Manufacturer Drilling Equipment Supply Inc

Slot size: 0.015 in.

Slot length: 12.0 ft.

11. Backfill material (below filter pack): None ☐

Active Case Other ☒

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P. J. Bl

Firm E. C. Jordan

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with

Facility/Project Name <u>2nd Stage Army Ammunition Plant</u>	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>PBN-90-04B</u>
Facility License, Permit or Monitoring Number _____	Section Location _____ 1/4 of _____ 1/4 of Section _____ T _____ N. R. _____ <input type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Distance Well Is From Waste/Source Boundary _____ ft.	Date Well Installed <u>05/06/90</u> m m d d y y
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Paul Balmer - E.C. Jordan</u>

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: _____ c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucket Rock</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 21 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight _____ Bentonite-sand slurry Lbs/gal mud weight _____ Bentonite slurry 5 % Bentonite _____ Bentonite-cement grout <input checked="" type="checkbox"/> 50 270 gal FF volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Drill Well</u>	How installed: Tremie <input type="checkbox"/> 1 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 01
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input checked="" type="checkbox"/> <u>Bentonite Slurry</u>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh _____ Volume added _____ ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh _____ Volume added _____ ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> Other <input type="checkbox"/>
E. Bentonite seal, top _____ ft. MSL or <u>92.8</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 1 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	Manufacturer <u>Drilling Equipment Supply Inc.</u> Slot size: <u>0.019</u> Slotted length: <u>40.0</u> ft.
G. Filter pack, top _____ ft. MSL or <u>102.8</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native sand</u> <input checked="" type="checkbox"/>
H. Well screen, top _____ ft. MSL or <u>110.0</u> ft.	
I. Well screen, bottom _____ ft. MSL or <u>120.0</u> ft.	
J. Filter pack, bottom _____ ft. MSL or <u>130.5</u> ft.	
K. Borehole, bottom _____ ft. MSL or <u>130.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature P. J. Balmer Firm E.C. Jordan
Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance

Facility/Project Name <u>Budger Army Ammunition Plant</u>	Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>PBN-90-040</u>
Facility License, Permit or Monitoring Number _____	Section Location _____ 1/4 of _____ 1/4 of Section _____ T _____ N. R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Wis. Unique Well Number _____ DNR Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Distance Well Is From Waste/Source Boundary _____ ft.	Date Well Installed <u>08/05/90</u> m m d d v v
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Paul Bolmer - E.C. Jordan</u>

A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: _____ in. b. Length: _____ ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> _____
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bulking Rts</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> <u>Grout</u>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> _____ Other <input checked="" type="checkbox"/> <u>Grout</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 550 gal ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well</u> Other <input type="checkbox"/> _____	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite Slurry</u> Other <input checked="" type="checkbox"/> _____
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size Volume added _____ ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size <u>Colorado Silica Sand Co., Colorado Silica Sand, 10-20</u> Volume added _____ ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> _____
E. Bentonite seal, top _____ ft. MSL or <u>198.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> _____
F. Fine sand, top _____ ft. MSL or _____ ft.	Manufacturer <u>Drilling Equipment Supply, Inc.</u> Slot size: <u>0.049 in.</u> Slot length: <u>60.0 ft.</u>
G. Filter pack, top _____ ft. MSL or <u>206.5</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native sand</u> Other <input checked="" type="checkbox"/> _____
H. Well screen, top _____ ft. MSL or <u>210.5</u> ft.	
I. Well screen, bottom _____ ft. MSL or <u>200.5</u> ft.	
J. Filter pack, bottom _____ ft. MSL or <u>221.0</u> ft.	
K. Borehole, bottom _____ ft. MSL or <u>232.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>9.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul Bolmer Firm E.C. Jordan

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance

Factory/Project Name <u>BHP RI/ES</u>		Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>SW-41-01B</u>	
Factory License, Permit or Monitoring Number _____				Well Unique well Number <u> </u> LNK well Nu <u> </u>	
Type of Well Water Table Observation Well <input type="checkbox"/> II Piezometer <input checked="" type="checkbox"/> II		Section Location 1/4 of _____ 1/4 of Section _____		Date Well installed <u>10/15/91</u>	
Distance Well is from Water Source Boundary <u>NA</u> ft.		T _____ N. R _____ <input type="checkbox"/> E <input type="checkbox"/> W		Well installed By: (Person's Name and firm) <u>Art Rodriguez</u>	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Water Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		<u>Layne Environmental</u>	

A. Protective pipe, top elevation -833.45 ft. MSL

B. Well casing, top elevation -833.25 ft. MSL

C. Land surface elevation -830.8 ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
☒ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☐ 41
Dual well reverse circulation Other ☒ _____

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
 a. Inside diameter: 6.0
 b. Length: 6.0
 c. Material: Steel ☒ 04
 Other ☐ _____
 d. Additional protection? ☒ Yes ☐ No
 If yes, describe: braking joints + gravel Pad

3. Surface seal: Bentonite ☐ 30
 Concrete ☒ 1
 Other ☐ _____

4. Material between well casing and protective pipe:
 Bentonite ☐ 70
 Annular space seal ☒ _____
 Other ☐ _____

5. Annular space seal: Granular Bentonite ☐ 30
 Lbs/gal mud weight ... Bentonite-sand slurry ☐ _____
 Lbs/gal mud weight ... Bentonite slurry ☐ _____
5 % Bentonite ... Bentonite-cement grout ☐ 30
 Ft³ volume added for any of the above _____
 How installed: Tremie ☐ _____
 Tremie pumped ☐ 00
 Gravity ☒ 04

6. Bentonite seal: Bentonite granules ☐ _____
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 5
20' Bentonite slurry Other ☒ _____

7. Fine sand material: Manufacturer, product name and mesh
none
 Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh
CSS Silica Sand
 Volume added 5.3 ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 20
 Flush threaded PVC schedule 80 ☒ 1
 Other ☐ _____

10. Screen material: PVC schedule 80
 Screen type: Factory cut ☒ 1
 Continuous slot ☐ 0
 Other ☐ _____

Manufacturer Mandlex Inc
 Slot size: 0.010
 Slotted length: 29.0

11. Backfill material (below filter pack): None ☒ _____
 Other ☐ _____

E. Bentonite seal, top -773.3 ft. MSL or -57.5 ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top -753.3 ft. MSL or -77.5 ft.

H. Well screen, top -727.1 ft. MSL or 103.1 ft.

I. Well screen, bottom -717.1 ft. MSL or 103.1 ft.

J. Filter pack, bottom -717.1 ft. MSL or 103.1 ft.

K. Borehole, bottom -717.1 ft. MSL or 103.1 ft.

L. Borehole, diameter 1.0 in.

M. O.D. well casing 4.25 in.
3.75

N. I.D. well casing 4.0 96

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Rod R. Hunter Firm ABBS-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name <u>BHAP RT/ES</u>	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>SWH-91-aic</u>
Factory License, Permit or Monitoring Number		Wis. Unique Well Number DNK Well Number
Type of Well: Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of _____ 1/4 of Section _____ T _____ N, R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Date Well Installed <u>10/16/91</u>
Distance Well is From Water Source Boundary <u>NA</u> ft.	Location of Well relative to Waste/Source <input checked="" type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	Well Installed By: (Person's Name and Firm) <u>Art Rodriguez</u> <u>Layne Environmental</u>
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

A. Protective pipe, top elevation <u>-834.12</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>-834.03</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>6.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>-831.0</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Bushing Pipe + gravel pad</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 Ft ³ volume added for any of the above _____
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Deal well Reverse Circulation</u> <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>20' Bentonite Slurry</u> Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____	7. Fine sand material: Manufacturer, product name and mesh size <u>none</u> Volume added _____ ft ³
17. Source of water (attach analysis): <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>CSSI Silica Sand</u> Volume added <u>4</u> ft ³
E. Bentonite seal, top <u>-711.0</u> ft. MSL or <u>-120.0</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	10. Screen material: <u>PVC Schedule 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
G. Filter pack, top <u>-696.0</u> ft. MSL or <u>-140.0</u> ft.	Manufacturer <u>Monoflex</u> Slot size: <u>0.010</u> in. Slotted length: <u>12.0</u> ft.
H. Well screen, top <u>-682.8</u> ft. MSL or <u>-148.2</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
I. Well screen, bottom <u>-672.8</u> ft. MSL or <u>-158.2</u> ft.	
J. Filter pack, bottom <u>-670.9</u> ft. MSL or <u>-160.1</u> ft.	
K. Borehole, bottom <u>-670.9</u> ft. MSL or <u>-160.1</u> ft.	
L. Borehole, diameter <u>2.0</u> in.	
M. O.D. well casing <u>4.25</u> in.	
N. I.D. well casing <u>3.75</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Rod R. Rust Firm ABB-ES

Facility/Project Name <u>BAA? RI/ES</u>	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>SUN-91-011</u>
Facility License, Permit or Monitoring Number		Well Unique Well Number <u>DNK Well No.</u>
Type of Well: Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well installed <u>10/14/91</u> m m d d y y
Distance Well is From Waste/Source Boundary <u>NA</u> ft.	T. N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well installed By: (Person's Name and firm) <u>Art Rodriguez</u>
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	<u>Layne Environmental</u>

A. Protective pipe, top elevation <u>833.26</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>833.57</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.5</u> b. Length: <u>6.1</u> c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/>
C. Land surface elevation <u>831.5</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Backing ports + gravel pad</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite Lbs/gal mud weight ... Bentonite-sand slurry Lbs/gal mud weight ... Bentonite slurry <u>5</u> % Bentonite ... Bentonite-cement grout _____ Ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> Gravity <input checked="" type="checkbox"/>
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well Reverse Circulation</u> <input checked="" type="checkbox"/> Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <u>20' Bentonite Slurry</u> Other <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh: <u>none</u> Volume added _____ Ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh: <u>CS2 Silica Sand</u> Volume added <u>4</u> Ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW # 2</u>	10. Screen material: <u>PVC Schedule 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> Continuous slot <input type="checkbox"/> Other <input type="checkbox"/>
E. Bentonite seal, top <u>681.5</u> ft. MSL or <u>150.0</u> ft.	Manufacturer <u>Manitex, Inc.</u> Slot size: <u>0.010</u> Slot length: <u>10.0</u>
F. Fine sand, top _____ ft. MSL or _____ ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> Other <input type="checkbox"/>
G. Filter pack, top <u>661.5</u> ft. MSL or <u>170.0</u> ft.	
H. Well screen, top <u>643.4</u> ft. MSL or <u>188.1</u> ft.	
I. Well screen, bottom <u>633.4</u> ft. MSL or <u>198.1</u> ft.	
J. Filter pack, bottom <u>631.3</u> ft. MSL or <u>200.2</u> ft.	
K. Borehole, bottom <u>631.3</u> ft. MSL or <u>200.2</u> ft.	
L. Borehole, diameter <u>1.0</u> in.	
M. O.D. well casing <u>4.25</u> in. <u>3.75</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Rusk Firm ABIS-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name RAAP RI/ES		Grid Location _____ ft <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SW-91-02	
Factory License, Permit or Monitoring Number _____				Wis. Unique Well Number _____ DNR Well Number _____	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed 10/22/91 m m d d v v	
Distance Well is From Water/Source Boundary NA ft.		T _____ N. R _____ <input type="checkbox"/> E <input type="checkbox"/> W Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well installed By: (Person's Name and Firm) Art Roden Layne Environmental	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

A. Protective pipe, top elevation **836.60** ft. MSL

B. Well casing, top elevation **836.39** ft. MSL

C. Land surface elevation **834.4** ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:

☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☐ 41
Dual Well Rammed Circulation ☒ 42

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top **218.3** ft. MSL or **116.2** ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top **698.2** ft. MSL or **136.2** ft.

H. Well screen, top **691.9** ft. MSL or **142.5** ft.

I. Well screen, bottom **681.9** ft. MSL or **152.5** ft.

J. Filter pack, bottom **679.4** ft. MSL or **155** ft.

K. Borehole, bottom **679.4** ft. MSL or **155** ft.

L. Borehole, diameter **2.0** in.

M. O.D. well casing **4.25** in.

N. I.D. well casing **3.75** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
 a. Inside diameter: **6.0** in.
 b. Length: **6.0** ft.
 c. Material: Steel ☒ 0-
 Other ☐ -
 d. Additional protection? ☒ Yes ☐ No
 If yes, describe: **Bushing Pits + Ground Seal**

3. Surface seal: Bentonite ☐ 30
 Concrete ☒ 0-
 Other ☐ -

4. Material between well casing and protective pipe:
 Bentonite ☐ 30
 Annular space seal ☒ -
 Other ☐ -

5. Annular space seal: Granular Bentonite ☐ 33
 Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
 Lbs/gal mud weight ... Bentonite slurry ☐ 3-
5 % Bentonite ... Bentonite-cement grout ☒ 50
 Ft³ volume added for any of the above _____
 How installed: Tremie ☐ 0-
 Tremie pumped ☐ 0-
 Gravity ☒ 0-

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
20' Bentonite Slurry Other ☒ -

7. Fine sand material: Manufacturer, product name and mesh size
None
 Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size
CS-1 Silica Sand
 Volume added **4** ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
 Flush threaded PVC schedule 30 ☒ 24
 Other ☐ -

10. Screen material: **PVC Schedule 40**
 Screen type: Factory cut ☒ 11
 Continuous slot ☐ 0-
 Other ☐ -

Manufacturer **Monsieur**
 Slot size: **0.010** in.
 Slotted length: **10.0** ft.

11. Backfill material (below filter pack): None ☒
 Other ☐ -

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Paul R. Kuntz

Firm

ABTS-ES

Facility/Project Name <u>BAAPI RI/ES</u>	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name <u>SW-41-02D</u>
Facility License, Permit or Monitoring Number _____	_____	Well Unique Well Number _____
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location _____ 1/4 of _____ 1/4 of Section _____	Date Well installed <u>12/23/16</u> m m d d y y
Distance Well Is from Water Source Boundary <u>N/A</u> ft.	T _____ N. R _____ <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Act Rodriguez</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Water Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	<u>Layne Environmental</u>

A. Protective pipe, top elevation <u>826.36</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>836.61</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.2</u> in. b. Length: <u>6.2</u> c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/>
C. Land surface elevation <u>834.5</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Banking posts + gravel pad</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 0 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 30 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> <u>5</u> % Bentonite ... Bentonite-cement grout <input type="checkbox"/> Ft ³ volume added for any of the above _____
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Well Reverse Circulation</u> <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input type="checkbox"/> 0 Gravity <input checked="" type="checkbox"/> 08
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>Navy</u> Volume added _____ ft ³
Describe _____	8. Filter pack material: Manufacturer, product name and mesh size <u>CSSE Silica Sand</u> Volume added <u>4</u> ft ³
17. Source of water (attach analysis): <u>QZ PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 2 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>694.1</u> ft. MSL or <u>140.4</u> ft.	10. Screen material: <u>PVC Schedule 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	Manufacturer <u>Mannar</u> Slot size: <u>0.010</u> in. Slot length: <u>18.01</u>
G. Filter pack, top <u>674.1</u> ft. MSL or <u>160.4</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>659.5</u> ft. MSL or <u>125.0</u> ft.	
I. Well screen, bottom <u>649.5</u> ft. MSL or <u>115.0</u> ft.	
J. Filter pack, bottom <u>644.3</u> ft. MSL or <u>110.2</u> ft.	
K. Borehole, bottom <u>644.3</u> ft. MSL or <u>110.2</u> ft.	
L. Borehole, diameter <u>4.0</u> in.	
M. O.D. well casing <u>4.25</u> in.	
N. I.D. well casing <u>3.75</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Turchi Firm ARIS-ES

Facility/Project Name <u>BAAP RI/ES</u>		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name <u>SWN-91-033</u>	
Facility License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed <u>10/28/91</u> m m d d y y	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Distance Well is from Waste/Source Boundary <u>NA</u> ft.		Well Installed By: (Person's Name and firm) <u>Art Rodriguez</u> <u>Layne Environmental</u>	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

<p>A. Protective pipe, top elevation <u>836.20</u> ft. MSL</p> <p>B. Well casing, top elevation <u>836.63</u> ft. MSL</p> <p>C. Land surface elevation <u>834.7</u> ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock </p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Deal Wall Reverse Circulation</u> <input checked="" type="checkbox"/> Other </p> <p>15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): <u>PW #2</u> </p> </div>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>6.2</u> in. b. Length: <u>6.2</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> ____ d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Ground Pad + Boring Pad</u> </p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> ____</p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> ____ Other <input type="checkbox"/> ____</p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>37.4</u> Ft³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03 </p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite Slurry 20'</u> Other <input checked="" type="checkbox"/> ____ </p> <p>7. Fine sand material: Manufacturer, product name and mesh size <u>SSS Silica Sand</u> </p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>SSS Silica Sand</u> </p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> ____</p> <p>10. Screen material: <u>PVC schedule 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> ____</p> <p>11. Backfill material (below filter pack): Manufacturer <u>Monitor Inc</u> Slot size: <u>0.010</u> in. Slotted length: <u>10.0</u> ft. None <input checked="" type="checkbox"/> ____ Other <input type="checkbox"/> ____ </p>
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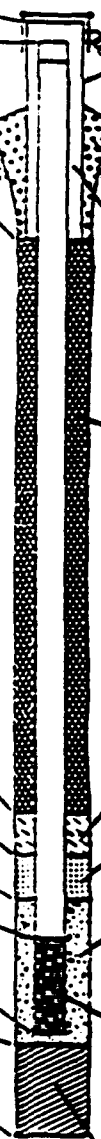
<p>E. Bentonite seal, top <u>766.7</u> ft. MSL or <u>62.0</u> ft.</p> <p>F. Fine sand, top _____ ft. MSL or _____ ft.</p> <p>G. Filter pack, top <u>746.5</u> ft. MSL or <u>88.2</u> ft.</p> <p>H. Well screen, top <u>731.3</u> ft. MSL or <u>103.4</u> ft.</p> <p>I. Well screen, bottom <u>721.3</u> ft. MSL or <u>113.4</u> ft.</p> <p>J. Filter pack, bottom <u>721.3</u> ft. MSL or <u>113.4</u> ft.</p> <p>K. Borehole, bottom <u>721.3</u> ft. MSL or <u>113.4</u> ft.</p> <p>L. Borehole, diameter <u>1.0</u> in.</p> <p>M. O.D. well casing <u>4.35</u> in.</p> <p>N. I.D. well casing <u>3.75</u> in.</p>	<p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> ____ Other <input type="checkbox"/> ____ </p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Rob R. Runko Firm ATSB-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION

Factory/Project Name BAAP R1/ES		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SWN-91-03C	
Factory License, Permit or Monitoring Number _____				Well Unique Well Number _____	
Type of Well: Water Table Observation Well <input type="checkbox"/> II Piezometer <input checked="" type="checkbox"/> II		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well Installed 10/02/91 m m d d y y	
Distance Well is From Waste/Source Boundary NA ft.		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Subgradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and Firm) Art Rodriguez Layne environmental	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

<p>A. Protective pipe, top elevation 836.74 ft. MSL</p> <p>B. Well casing, top elevation 836.73 ft. MSL</p> <p>C. Land surface elevation 834.6 ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock</p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well Reverse Circulation</u> <input checked="" type="checkbox"/> Other</p> <p>15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): <u>PW #2</u> </p> </div> <p>E. Bentonite seal, top 214.6 ft. MSL or 118.0 ft.</p> <p>F. Fine sand, top _____ ft. MSL or _____ ft.</p> <p>G. Filter pack, top 696.4 ft. MSL or 138.2 ft.</p> <p>H. Well screen, top 681.8 ft. MSL or 152.8 ft.</p> <p>I. Well screen, bottom 671.8 ft. MSL or 142.8 ft.</p> <p>J. Filter pack, bottom 671.8 ft. MSL or 142.8 ft.</p> <p>K. Borehole, bottom 671.8 ft. MSL or 142.8 ft.</p> <p>L. Borehole, diameter 9.0 in.</p> <p>M. O.D. well casing 4.25 in. 3.75</p> <p>N. I.D. well casing 4.0 in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: 6.6 in. b. Length: 6.6 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Gravel Pad + Baking Dish</u> </p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/></p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> Lbs/gal mud weight ... Bentonite-sand slurry Lbs/gal mud weight ... Bentonite slurry <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>64</u> Ft³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 1 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03 </p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 3 <u>20' Bentonite Slurry</u> Other <input checked="" type="checkbox"/> </p> <p>7. Fine sand material: Manufacturer, product name and mesh size <u>nom 8</u> Volume added <u>2.7</u> ft³ </p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>CSSI Silica Sand</u> Volume added <u>2.7</u> ft³ </p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/></p> <p>10. Screen material: <u>PVC Schedule 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> 1 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/></p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Art Rodriguez

Firm

ABB-ES

Facility/Project Name BAAP RI/ES		Grid Location _____ ft <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SWN-91-030	
Facility License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		WIS. Unique Well Number _____	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Date Well installed 10/01/91		Well installed By: (Person's Name and Firm) Art Rodriguez	
Distance Well is from Water Source Boundary NA ft		Location of Well relative to Water Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Layne Environmental	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

A. Protective pipe, top elevation **-837.09** ft. MSL

B. Well casing, top elevation **-837.09** ft. MSL

C. Land surface elevation **-835.0** ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
☒ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☐ 41
Drilled with reverse circulation Other ☒ _____

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW # 2

E. Bentonite seal, top **-690.0** ft. MSL or **-45.0** ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top **-659.8** ft. MSL or **-273.2** ft.

H. Well screen, top **-635.9** ft. MSL or **-199.1** ft.

I. Well screen, bottom **-625.9** ft. MSL or **-209.1** ft.

J. Filter pack, bottom **-625.9** ft. MSL or **-209.1** ft.

K. Borehole, bottom **-625.9** ft. MSL or **-209.1** ft.

L. Borehole, diameter **-1.8** in.

M. O.D. well casing **-4.25** in.

N. I.D. well casing **-3.75** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
 a. Inside diameter: **-6.0** in.
 b. Length: **-6.0** ft.
 c. Material: Steel ☒ 04
 Other ☐ _____
 d. Additional protection? ☒ Yes ☐ No
 If yes, describe: gravel pad + bucky post

3. Surface seal: Bentonite ☐ 30
 Concrete ☒ 01
 Other ☐ _____

4. Material between well casing and protective pipe:
 Bentonite ☐ 30
 Annular space seal ☒ _____
 Other ☐ _____

5. Annular space seal: Granular Bentonite ☐ 33
 Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
 Lbs/gal mud weight ... Bentonite slurry ☐ 31
5 % Bentonite ... Bentonite-cement grout ☒ 50
130 Ft³ volume added for any of the above
 How installed: Tremie ☐ 01
 Tremie pumped ☐ 02
 Gravity ☒ 08

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
30' Bentonite Slurry Other ☒ _____

7. Fine sand material: Manufacturer, product name and mesh size
none
 Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size
CS-1 Silica Sand
 Volume added 4 ft³

9. Well casing: Finish threaded PVC schedule 40 ☐ 23
 Finish threaded PVC schedule 80 ☒ 24
 Other ☐ _____

10. Screen material: PVC schedule 80
 Screen type: Factory cut ☒ 11
 Continuous slot ☐ 01
 Other ☐ _____

Manufacturer Monoflex, Inc.
 Slot size: 0.010 in.
 Slotted length: 10.9 ft.

11. Backfill material (below filter pack): None ☒
 Other ☐ _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Tucker Firm ATSB-ES

Facility/Project Name BAAP RI/FS		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SWN-91-03E	
Facility License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well Installed 11/10/91 m m d d y y	
Type of Well: Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Distance Well Is From Waste/Source Boundary NA ft.		Well Installed By: (Person's Name and Firm) A. Rodriguez Layne Environmental	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

A. Protective pipe, top elevation -837.50 ft. MSL B. Well casing, top elevation -837.38 ft. MSL C. Land surface elevation -83.50 ft. MSL D. Surface seal, bottom _____ ft. MSL or _____ ft. <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> 12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input checked="" type="checkbox"/> Bedrock </div> 13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 14. Drilling method used: Rotary <input checked="" type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Dual-Well Rev. Circ. <input checked="" type="checkbox"/> Other <input type="checkbox"/> 15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99 16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____ 17. Source of water (attach analysis): BAAP Production Well #2	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Protective cover pipe: a. Inside diameter: _____ b. Length: _____ c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Bucking Rots + Gravel Pad 3. Surface seal: Bentonite <input type="checkbox"/> Concrete <input checked="" type="checkbox"/> Other <input type="checkbox"/> 4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/> 5. Annular space seal: Granular Bentonite <input type="checkbox"/> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 130 Ft. ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> Gravity <input checked="" type="checkbox"/> 6. Bentonite seal: Bentonite granules <input type="checkbox"/> <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> Bentonite Slurry Other <input checked="" type="checkbox"/> 7. Fine sand material: Manufacturer, product name and mesh None Volume added _____ Ft. ³ 8. Filter pack material: Manufacturer, product name and mesh CSSL 10-20 Silica Sand Volume added ~ 4.75 Ft. ³ 9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> Other <input type="checkbox"/> 10. Screen material: Schedule 80 PVC Screen type: Factory cut <input checked="" type="checkbox"/> Continuous slot <input type="checkbox"/> Other <input type="checkbox"/> Manufacturer Monoflex, Inc. Slot size: _____ Slot length: _____ 11. Backfill material (below filter pack): None <input type="checkbox"/> CSSL 10-20 Silica Sand Other <input checked="" type="checkbox"/>
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E. Bentonite seal, top -635.0 ft. MSL or 200.0 ft. F. Fine sand, top _____ ft. MSL or _____ ft. G. Filter pack, top -615.0 ft. MSL or 220.0 ft. H. Well screen, top -607.1 ft. MSL or 227.9 ft. I. Well screen, bottom -597.1 ft. MSL or 237.9 ft. J. Filter pack, bottom -577.0 ft. MSL or 258.0 ft. K. Borehole, bottom -577.0 ft. MSL or 258.0 ft. L. Borehole, diameter 5.5 in. M. O.D. well casing 4.50 in. N. I.D. well casing 3.75 in.	
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature R. Penleton

Firm ABB Environmental Services, Inc.

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Factory/Project Name <u>BAAP RC/FS</u>	Grid Location N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/>	Well Name <u>SWN-91-04C</u>
Factory License, Permit or Monitoring Number		Well Unique Well Number <u>UNK Well Number</u>
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well installed <u>10/13/92</u> m m d d y y
Distance Well is From Water/Source Boundary <u>NA</u> ft.	T <input type="checkbox"/> N <input type="checkbox"/> R <input type="checkbox"/> E <input type="checkbox"/> W <input type="checkbox"/>	Well Installed By: (Person's Name and Firm) <u>Art Rodriguez</u> <u>Layne Environmental</u>
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>835.02</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>834.87</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>6.6</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 0- Other <input type="checkbox"/>
C. Land surface elevation <u>832.8</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>Boring posts + gravel pad</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight <u> </u> Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight <u> </u> Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite <u> </u> Bentonite-cement grout <input checked="" type="checkbox"/> 50 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Deal well reverse circulation</u> <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>20' Bentonite Slurry</u> Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>none</u> Volume added <u> </u> ft ³
Describe <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>CSSI Silver Sand</u> Volume added <u>4</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>708.6</u> ft. MSL or <u>124.2</u> ft.	10. Screen material: <u>PVC schedule 80</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u> </u> ft. MSL or <u> </u> ft.	Manufacturer <u>Monoflex Inc</u> Slot size: <u>0.010</u> in. Slot length: <u>10.0</u> ft.
G. Filter pack, top <u>688.6</u> ft. MSL or <u>144.2</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>678.8</u> ft. MSL or <u>154.0</u> ft.	
I. Well screen, bottom <u>668.8</u> ft. MSL or <u>144.0</u> ft.	
J. Filter pack, bottom <u>668.8</u> ft. MSL or <u>144.0</u> ft.	
K. Borehole, bottom <u>668.8</u> ft. MSL or <u>144.0</u> ft.	
L. Borehole, diameter <u>1.0</u> in.	
M. O.D. well casing <u>4.25</u> in.	
N. I.D. well casing <u>3.75</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Rutter

Firm ABB-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BAAP RI/ES		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SW-91-04D	
Factory License, Permit or Monitoring Number _____				Wis. Unique Well Number: _____ DNR Well Number: _____	
Type of Well: Water Table Observation Well <input type="checkbox"/> II Piezometer <input checked="" type="checkbox"/> 12		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well Installed 10/09/91 m m d d v v	
Distance Well Is From Waste/Source Boundary NA ft.		T _____ N, R _____ <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) Art Rodriguez Layne Environmental	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

<p>A. Protective pipe, top elevation 835.40 ft. MSL</p> <p>B. Well casing, top elevation 835.28 ft. MSL</p> <p>C. Land surface elevation 833.5 ft. MSL</p> <p>D. Surface seal, bottom _____ ft. MSL or _____ ft.</p> <div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock </p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Deal Well Reverse Circulation <input checked="" type="checkbox"/> </p> <p>15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis): PW #2 </p> </div>	<p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 6.5 c. Material: Steel <input checked="" type="checkbox"/> Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Buckey posts + gravel pad </p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> </p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/> </p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 5 % Bentonite ... Bentonite-cement grout <input type="checkbox"/> 100 Ft³ volume added for any of the above How installed: Tremie <input type="checkbox"/> Tremie pumped <input type="checkbox"/> Gravity <input checked="" type="checkbox"/> 03 </p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 20' Bentonite Slurry Other <input checked="" type="checkbox"/> </p> <p>7. Fine sand material: Manufacturer, product name and mesh size Name Volume added _____ ft³ </p> <p>8. Filter pack material: Manufacturer, product name and mesh size CSSI Silver Sand Volume added 2.7 ft³ </p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/> </p> <p>10. Screen material: PVC schedule 80 Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/> </p> <p>11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/> </p>
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<p>E. Bentonite seal, top 676.5 ft. MSL or 157.0 ft.</p> <p>F. Fine sand, top _____ ft. MSL or _____ ft.</p> <p>G. Filter pack, top 656.5 ft. MSL or 127.0 ft.</p> <p>H. Well screen, top 646.5 ft. MSL or 117.0 ft.</p> <p>I. Well screen, bottom 636.5 ft. MSL or 117.0 ft.</p> <p>J. Filter pack, bottom 636.5 ft. MSL or 127.0 ft.</p> <p>K. Borehole, bottom 636.5 ft. MSL or 117.0 ft.</p> <p>L. Borehole, diameter 1.0 in.</p> <p>M. O.D. well casing 4.25 in.</p> <p>N. I.D. well casing 3.75 in.</p>	<p>Manufacturer Monoflex Inc</p> <p>Slot size: 0.019</p> <p>Slot length: 10.0</p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

 Signature **Paul R. Kuntz** Firm **ABB-ES**

Factory/Project Name BAAP RI/ES		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SWN-91-05B	
Factory License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed <u>1</u> / <u>2</u> / <u>1991</u> m m d d y y	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Distance Well Is From Waste/Source Boundary 150 ft.		Well installed By: (Person's Name and firm) Lab. Resources	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Lapse Environmental	

A. Protective pipe, top elevation **-832.80** ft. MSL

B. Well casing, top elevation **-832.67** ft. MSL

C. Land surface elevation **-830.5** ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:
☒ GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☐ 41
Dual well reverse circulation Other ☒

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top **-754.5** ft. MSL or **-76.0** ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top **-734.5** ft. MSL or **-46.0** ft.

H. Well screen, top **-728.0** ft. MSL or **102.5** ft.

I. Well screen, bottom **-718.0** ft. MSL or **112.5** ft.

J. Filter pack, bottom **-718.0** ft. MSL or **112.5** ft.

K. Borehole, bottom **-718.0** ft. MSL or **112.5** ft.

L. Borehole, diameter **1.0** in.

M. O.D. well casing **4.25** in.
3.75 in. **PC**

N. I.D. well casing **4.0** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: **6.2** in.
b. Length: **6.2** ft.
c. Material: Steel ☒ 04
Other ☐ ____

d. Additional protection? ☒ Yes ☐ No
If yes, describe: **Buckling Posts & gravel pad**

3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐ ____

4. Material between well casing and protective pipe:
Bentonite ☐ 30
Annular space seal ☒ ____
Other ☐ ____

5. Annular space seal: Granular Bentonite ☐ 33
Lbs/gal mud weight ... Bentonite-sand slurry ☐ 35
Lbs/gal mud weight ... Bentonite slurry ☐ 31
5 % Bentonite ... Bentonite-cement grout ☒ 50
41 Ft³ volume added for any of the above

How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 03

6. Bentonite seal: Bentonite granules ☐ 33
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐ 32
20' Bentonite Slurry Other ☒ ____

7. Fine sand material: Manufacturer, product name and mesh size
none

Volume added _____ ft³

8. Filter pack material: Manufacturer, product name and mesh size
CSA Silica sand

Volume added **4** ft³

9. Well casing: Flush threaded PVC schedule 40 ☐ 23
Flush threaded PVC schedule 80 ☒ 24
Other ☐ ____

10. Screen material: **PVC Schedule 80**
Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ ____

Manufacturer **MonsiFlex**
Slot size: **0.010** in.
Slot length: **10.0** ft.

11. Backfill material (below filter pack): None ☒
Other ☐ ____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature

Rod R. Runtz

Firm

ABB-ES

Factory/Project Name BAAP RI/FS		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SWN-91-05C	
Factory License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well Installed 10/11/91 <small>m m d d y y</small>	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Distance Well is from Waste/Source Boundary NA ft.		Well Installed By: (Person's Name and Firm) Art Rodriguez Layne Environmental	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

A. Protective pipe, top elevation **832.24** ft. MSL

B. Well casing, top elevation **832.86** ft. MSL

C. Land surface elevation **830.8** ft. MSL

D. Surface seal, bottom _____ ft. MSL or _____ ft.

12. USCS classification of soil near screen:

☐ GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP
☐ SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH
☐ Bedrock

13. Sieve analysis attached? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
 Hollow Stem Auger ☐ 41
Dual Wall Reverse Circulation ☒ Other

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
 Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis):
PW #2

E. Bentonite seal, top **722.6** ft. MSL or **108.2** ft.

F. Fine sand, top _____ ft. MSL or _____ ft.

G. Filter pack, top **702.6** ft. MSL or **128.2** ft.

H. Well screen, top **693.8** ft. MSL or **137.0** ft.

I. Well screen, bottom **683.8** ft. MSL or **147.0** ft.

J. Filter pack, bottom **683.8** ft. MSL or **147.0** ft.

K. Borehole, bottom **683.8** ft. MSL or **147.0** ft.

L. Borehole, diameter **1.0** in.

M. O.D. well casing **4.25** in.
3.75 in.

N. I.D. well casing **4.2** in.

1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
 a. Inside diameter: **6.0** in.
 b. Length: **6.6** ft.
 c. Material: ☐ Steel ☐ Other _____

d. Additional protection? ☒ Yes ☐ No
 If yes, describe: **gravel pad + Bucking pad**

3. Surface seal: ☐ Bentonite ☐ Concrete ☐ Other _____

4. Material between well casing and protective pipe:
☐ Bentonite ☐ 30
 Annular space seal ☒ Other _____

5. Annular space seal: ☐ Granular Bentonite ☐ 30
 Lbs/gal mud weight ... Bentonite-sand slurry ☐ 75
 Lbs/gal mud weight ... Bentonite slurry ☐
5 % Bentonite ... Bentonite-cement grout ☐
64 Ft³ volume added for any of the above
 How installed: ☐ Tremie ☐ Tremie pumped ☐ Gravity ☒ 03

6. Bentonite seal: ☐ Bentonite granules ☐
☐ 1/4 in. ☐ 3/8 in. ☐ 1/2 in. Bentonite pellets ☐
20' Bentonite Slurry ☒ Other _____

7. Fine sand material: Manufacturer, product name and mesh size
none
 Volume added _____ Ft³

8. Filter pack material: Manufacturer, product name and mesh size
CST Silica sand
 Volume added **2.6** Ft³

9. Well casing: ☐ Flush threaded PVC schedule 40 ☐ 23
☐ Flush threaded PVC schedule 80 ☒ 2
☐ Other _____

10. Screen material: **PVC Schedule 80**
 Screen type: ☐ Factory cut ☒ 11
☐ Continuous slot ☐ Other _____

Manufacturer **Monoplex Inc.**
 Slot size: **0.010**
 Slotted length: **12.4**

11. Backfill material (below filter pack): ☐ None ☒
☐ Other _____

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul R. Tumbler Firm ABB-ES

ABB Environmental Services, Inc.
MONITORING WELL CONSTRUCTION FORM

Facility/Project Name BAAP RI/ES		Grid Location _____ ft. <input type="checkbox"/> N. <input type="checkbox"/> S. _____ ft. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name SWN-21-05D	
Factory License, Permit or Monitoring Number _____		Section Location _____ 1/4 of _____ 1/4 of Section _____		Date Well installed 10/20/91	
Type of Well: Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Distance Well is from Waste/Source Boundary NA ft.		Well installed By: (Person's Name and Firm) Art Rodriguez Layne Environmental	
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

A. Protective pipe, top elevation 833.48 ft. MSL B. Well casing, top elevation 833.31 ft. MSL C. Land surface elevation 831.2 ft. MSL D. Surface seal, bottom _____ ft. MSL or _____ ft. <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> 12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock </div> 13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Deal Well Reverse Circulation <input checked="" type="checkbox"/> 10 15. Drilling fluid used: Water <input checked="" type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99 16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Describe _____ 17. Source of water (attach analysis): PU #2	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 6.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Gravel pad + Bentonite 3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> 4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/> 5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 100 Ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 03 6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 20' Bentonite Slurry Other <input checked="" type="checkbox"/> 7. Fine sand material: Manufacturer, product name and mesh size None Volume added _____ ft ³ 8. Filter pack material: Manufacturer, product name and mesh size CSSE Silica Sand Volume added 4 ft ³ 9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> 10. Screen material: PVC Schedule 80 Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> Manufacturer Monaflex Inc Slot size: 0.010 in. Slotted length: 10.0 ft. 11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
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E. Bentonite seal, top 673.2 ft. MSL or 158.0 ft. F. Fine sand, top _____ ft. MSL or _____ ft. G. Filter pack, top 653.1 ft. MSL or 178.1 ft. H. Well screen, top 640.7 ft. MSL or 110.5 ft. I. Well screen, bottom 630.7 ft. MSL or 200.5 ft. J. Filter pack, bottom 630.7 ft. MSL or 200.5 ft. K. Borehole, bottom 628.8 ft. MSL or 202.4 ft. L. Borehole, diameter 9.0 in. M. O.D. well casing 4.25 in. 3.75 in. PP N. I.D. well casing 4.0 in.	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Protective cover pipe: a. Inside diameter: 6.0 in. b. Length: 6.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Gravel pad + Bentonite 3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/> 4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/> Other <input type="checkbox"/> 5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 100 Ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input type="checkbox"/> 03 6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 20' Bentonite Slurry Other <input checked="" type="checkbox"/> 7. Fine sand material: Manufacturer, product name and mesh size None Volume added _____ ft ³ 8. Filter pack material: Manufacturer, product name and mesh size CSSE Silica Sand Volume added 4 ft ³ 9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> 10. Screen material: PVC Schedule 80 Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> Manufacturer Monaflex Inc Slot size: 0.010 in. Slotted length: 10.0 ft. 11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

 Signature **Paul R. Custod**

 Firm **ABB-ES**

Badger Army Ammunition Plant
Baraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 3742

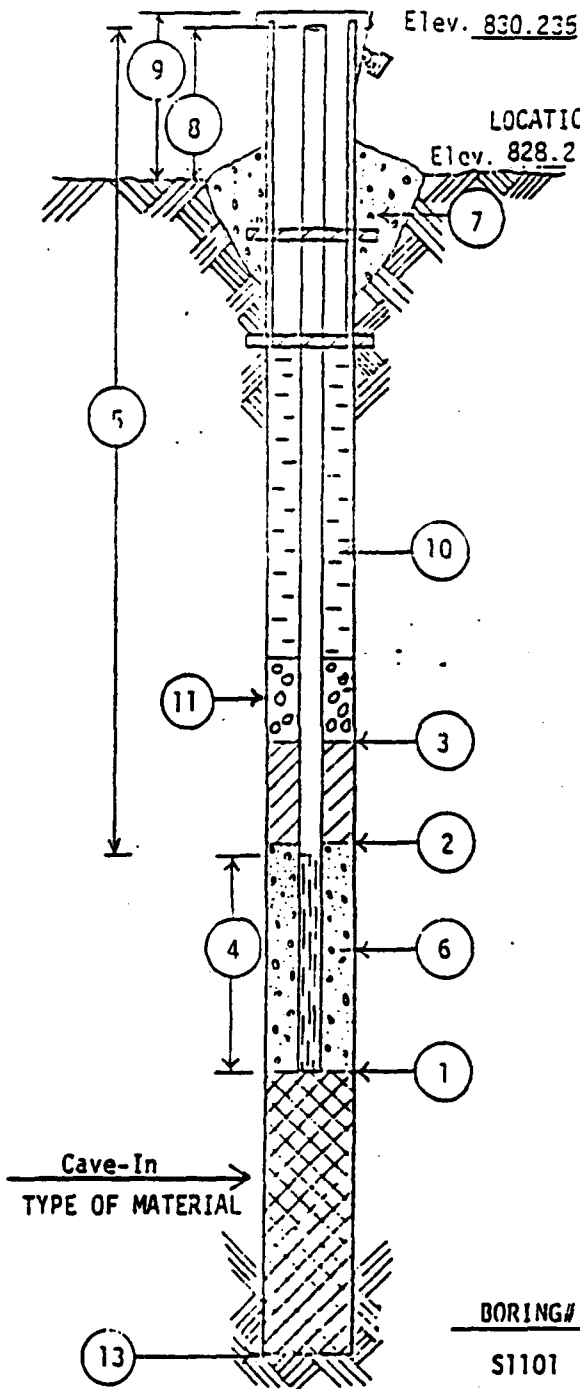
BORING NO. S1101

DATE 12/14/79

CHIEF RJR

LOCATION N484.732.21 E2.061.540.51

All depth measurements of well detail
to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 59 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 12'1" FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 10' FEET.
- ④ LENGTH OF PVC WELL SCREEN, 20 FEET. Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 50 FEET @ 4 ID IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Cave-In.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.0 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 3.3'
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement-Bentonite Grout
3:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK None FEET.
- ⑫ DEPTH TO FIRST COUPLING 5.0 FEET. (TC)
COUPLING INTERVAL 10.2 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 80.0 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1101	2/19/80		65.98'	764.26'

Badger Army Ammunition Plant
Baraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

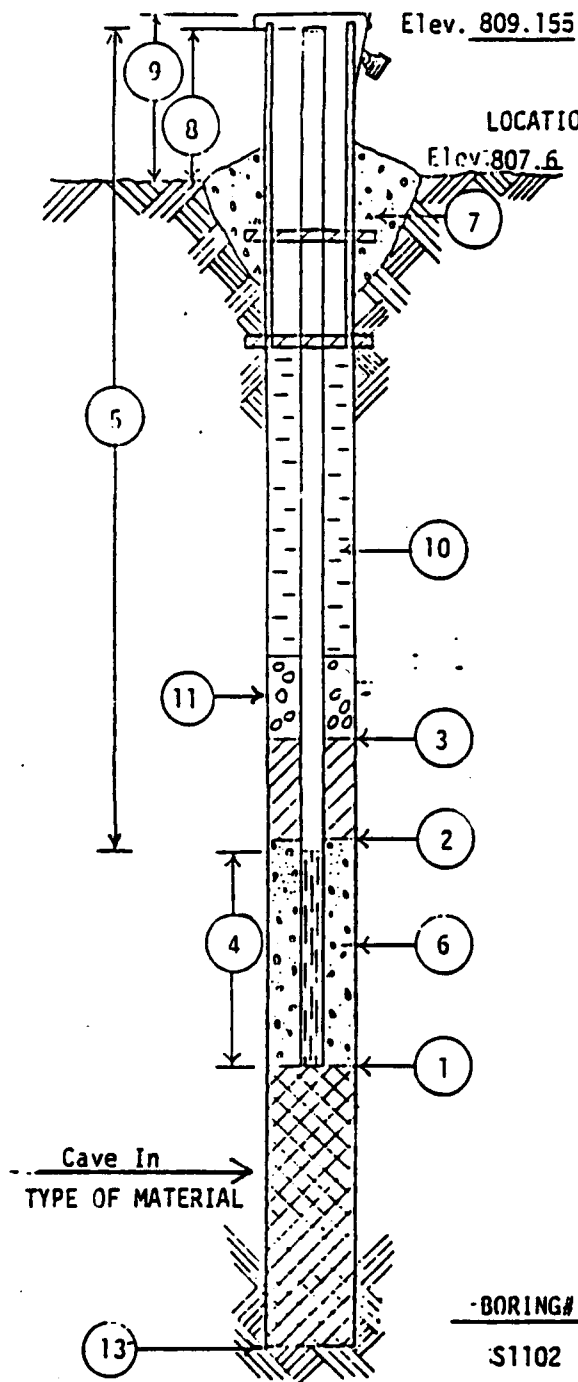
BORING NO. S1102

DATE 11/5/79

CHIEF HFS

LOCATION N484, 691.76 E2,067,598.46

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 64.60 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 40.92 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 36.56 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.00 FEET. 19 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 46.18 FEET @ 4 ID IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 1.58 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.6
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL Cement/Bentonite Grout
3:1 by weight
- 11 THICKNESS OF GRAVEL PACK 4.23 FEET.
- 12 DEPTH TO FIRST COUPLING .40 FEET. (TOC)
COUPLING INTERVAL 15.26 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 65 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1102	2/19/80		45.27'	763.89

Note: S1103 nearest sample boring

Badger Army Ammunition Plant
Baraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 3742

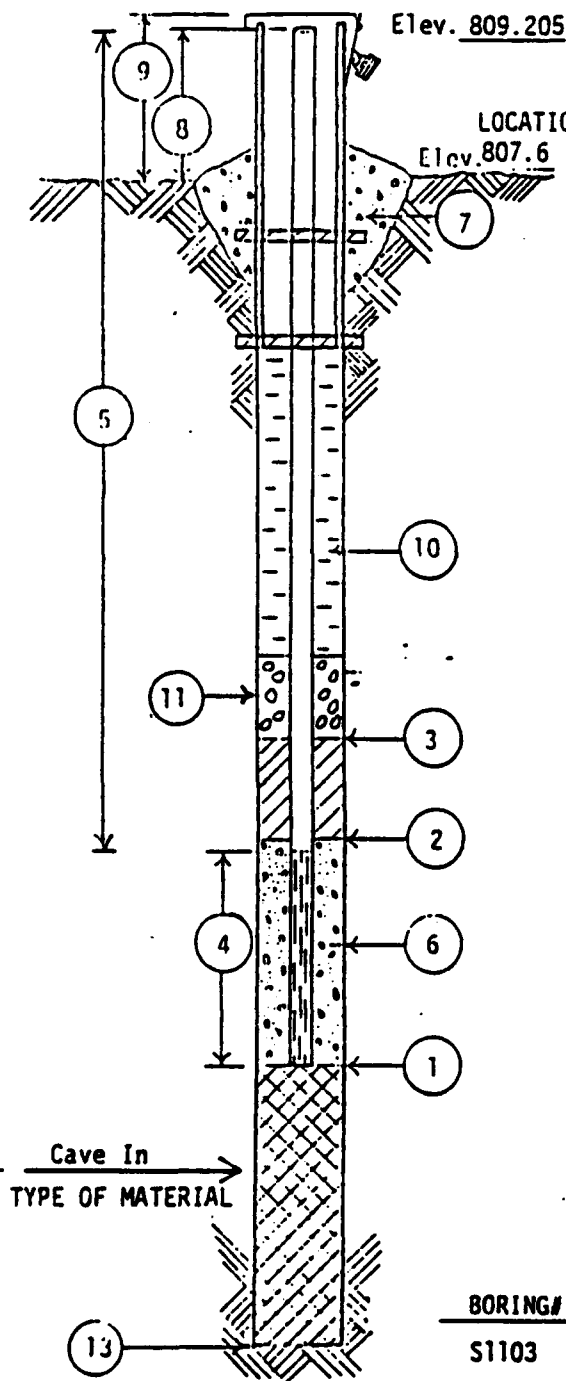
BORING NO. S1103

DATE 11/2/79

CHIEF HFS

LOCATION N484,687.77 E2,067,591.00

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 120.11 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 109.79 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 107.25 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 5.05 FEET. 5.05 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 116.64 FEET @ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 1.58 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
3:1 by weight
- 11 THICKNESS OF GRAVEL PACK 1.07 FEET.
- 12 DEPTH TO FIRST COUPLING 4.40 FEET. (TO)
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 120 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1103	2/19/80		45.24	763.97

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

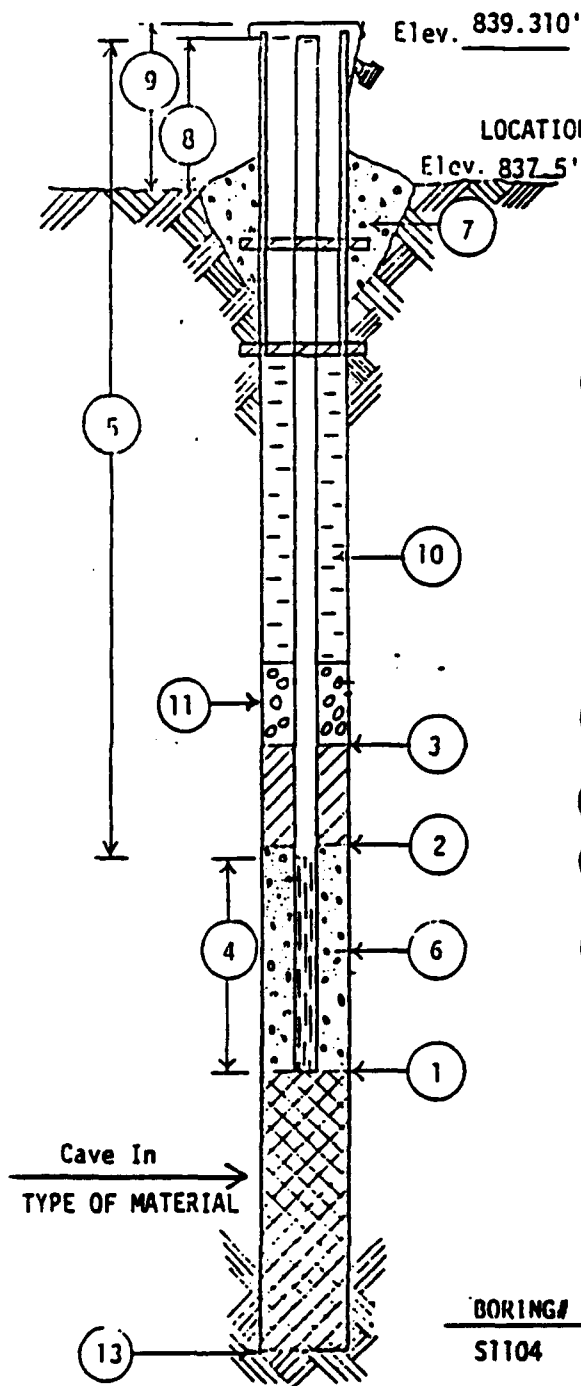
BORING NO. S1104

DATE 11/7/79

CHIEF HFS

LOCATION N484,801.60 E2,071,095.05

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 93.52 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
65.6 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
64.6 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.22 FEET. 18.92 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 75.10 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
1.8 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND _____
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
3:1 by weight
- 11 THICKNESS OF GRAVEL PACK 3 FEET.
- 12 DEPTH TO FIRST COUPLING 2.56 FEET. (TOC)
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 96 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1104	2/19/80		75.20'	764.11'

Note: S1106 nearest sampled boring

Badger Army Ammunition Plant
Baraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 3742

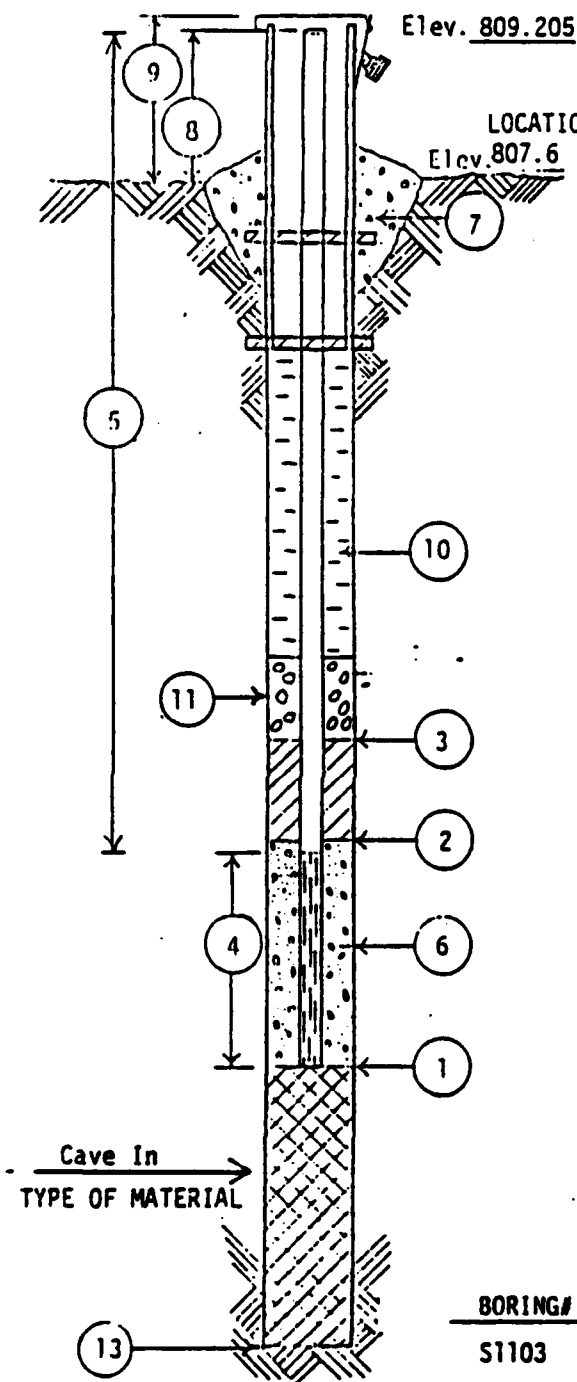
BORING NO. S1103

DATE 11/2/79

CHIEF HFS

LOCATION N484,687.77 E2,067,591.00

All depth measurements of well detail
to be from ground surface.



① DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 120.11 FEET.

② DEPTH OF BOTTOM OF SEAL (if installed)
109.79 FEET.

③ DEPTH TO TOP OF SEAL (if installed)
107.25 FEET.

④ LENGTH OF PVC WELL SCREEN,
5.05 FEET. 5.05 Feet Slotted

⑤ TOTAL LENGTH OF PIPE 116.64 FEET
@ 4 I.D. IN. DIAMETER.

⑥ TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.

⑦ CONCRETE CAP, YES (NO) (Circle One)

⑧ HEIGHT OF WELL CASING ABOVE GROUND
1.58 FEET.

⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND
LOCKING CAP? YES NO (Circle One)

⑩ TYPE OF BACKFILL: Cement/Bentonite Grout
3:1 by weight

⑪ THICKNESS OF GRAVEL PACK 1.07 FEET.

⑫ DEPTH TO FIRST COUPLING 4.40 FEET. (To
COUPLING INTERVAL 10.2 FEET.

⑬ TOTAL DEPTH OF BOREHOLE 120 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1103	2/19/80		45.24	763.97

Badger Army Ammunition Plant
Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

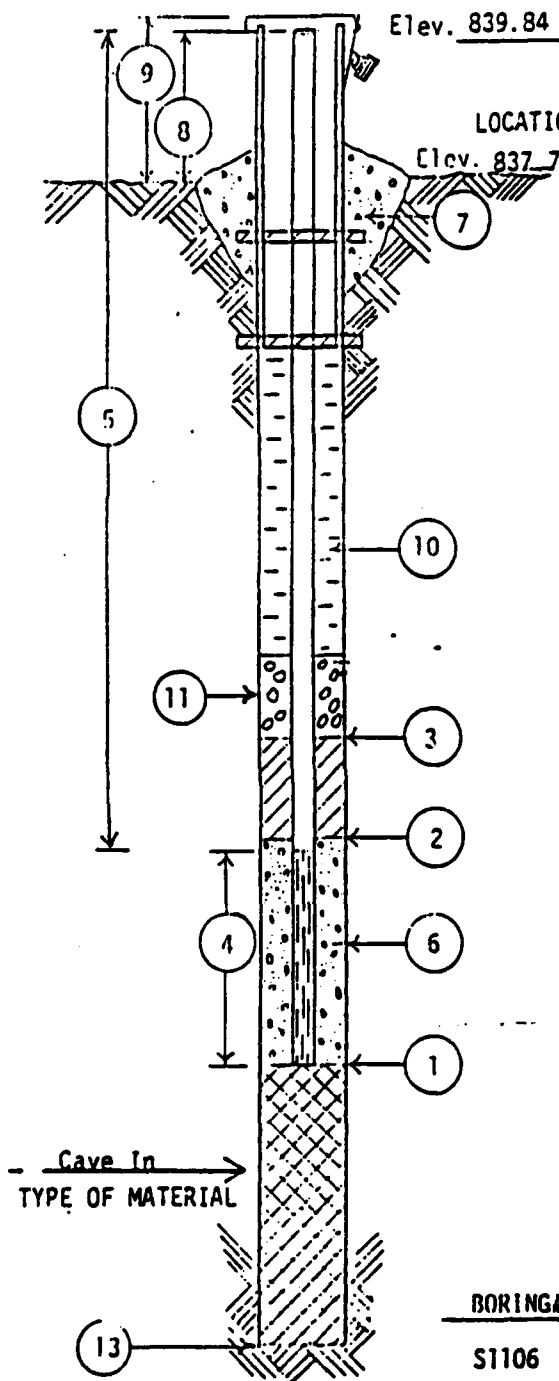
BORING NO. S1106

DATE 11/14/79

CHIEF HFS

LOCATION N484,793.05 E2,071,101.83

All depth measurements of well detail
to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 135.72 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 125.15 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 119.55 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 4.96 FEET. 4.5 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 132.87 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand & Cave in Material
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.1 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement/Bentonite Grout 3:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK 7.8 FEET.
- ⑫ DEPTH TO FIRST COUPLING .55 FEET. (TOC)
COUPLING INTERVAL 10.2 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 136 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1106	2/19/80		75.74'	764.10'

Badger Army Ammunition Plant
Baraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

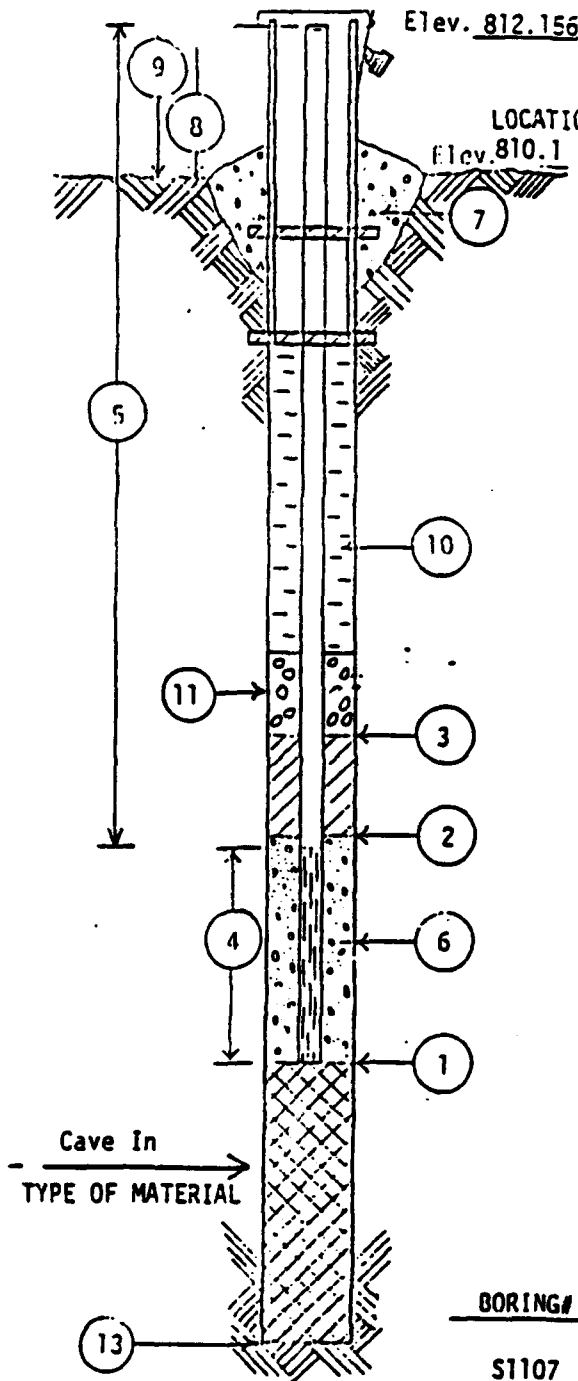
BORING NO. S1107

DATE 1/10/80

CHIEF HFS

LOCATION N484,860.18 E2,072,645.25

All depth measurements of well detail
to be from ground surface.



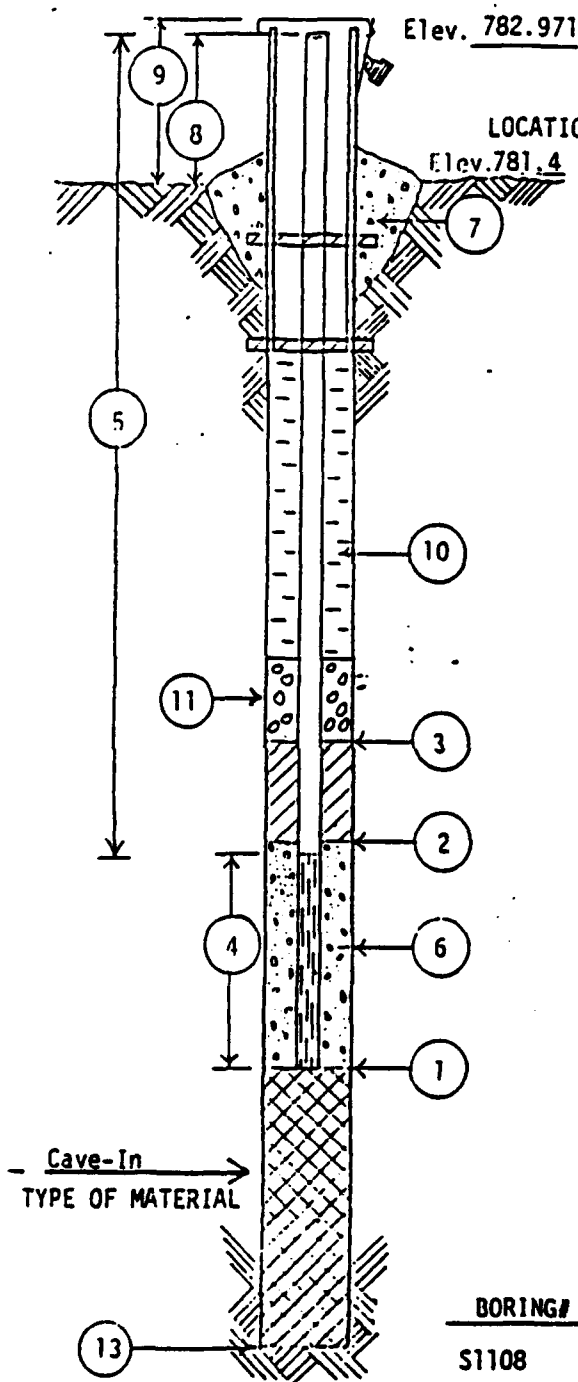
- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 73.7 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 8.1 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 7 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.39 FEET. 18.80 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 55.43 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Cave-in & Medium Sand
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.1 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.1
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
3:1 by weight
- 11 THICKNESS OF GRAVEL PACK 1 FEET.
- 12 DEPTH TO FIRST COUPLING 4.35 FEET. (TC)
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 78 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1107	2/19/80		47.93	764.23

WELL DETAIL INFORMATION SHEET

CHIEF J. Rose

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 39.25 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
9.5 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
8.5 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.41 FEET. 19.01 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 20.44 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
1.6 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.9'
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement Bentonite Grout
- 11 THICKNESS OF GRAVEL PACK 1.5 ^{3:1 by weight} FEET.
- 12 DEPTH TO FIRST COUPLING 10.21 FEET. From
COUPLING INTERVAL 10.2 FEET. (TOC)
- 13 TOTAL DEPTH OF BOREHOLE 42 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1108	2/19/80		18.92	764.05

Madger Army Ammunition Plant
Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

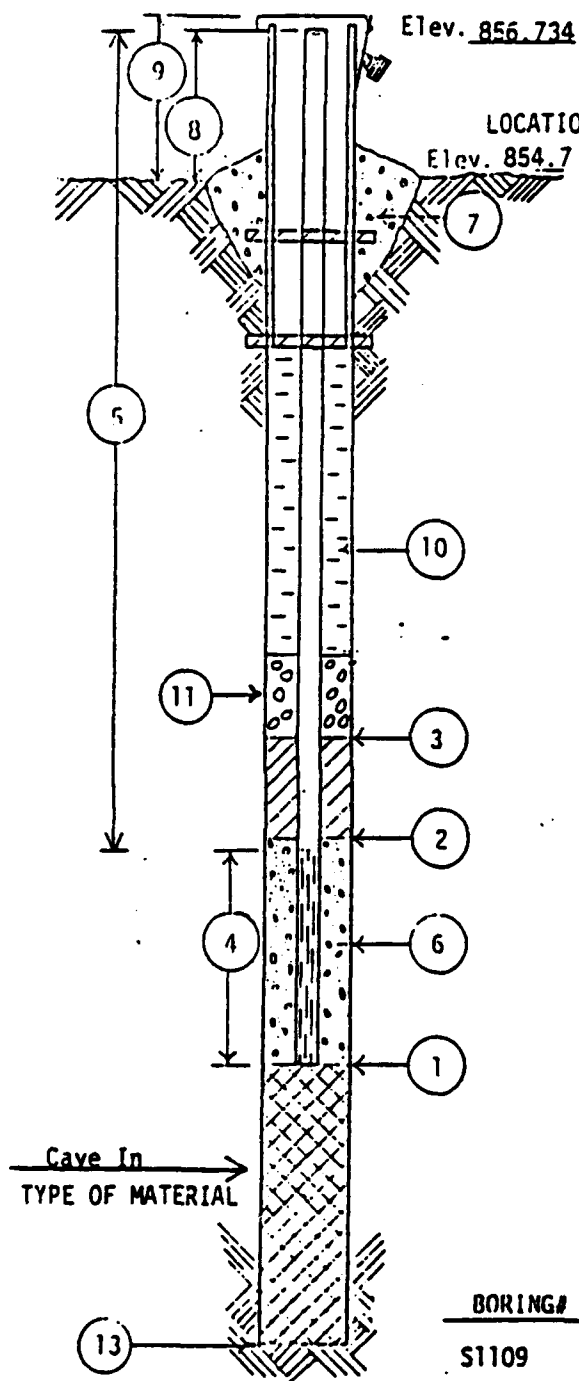
BORING NO. S1109

DATE 2/14/80

CHIEF HFS

LOCATION N488.536.15 E2.064.509.76

All depth measurements of well detail
to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 107.34 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 12 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 11 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 20.38 FEET. 19.06 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 89.01 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.05 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.05
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement/Bentonite Grout 6:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK 2 FEET.
- ⑫ DEPTH TO FIRST COUPLING 7.42 FEET. (T)
COUPLING INTERVAL 10.21 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 108 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1109	2/19/80		87.18'	769.55'

Radger Army Ammunition Plant
Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

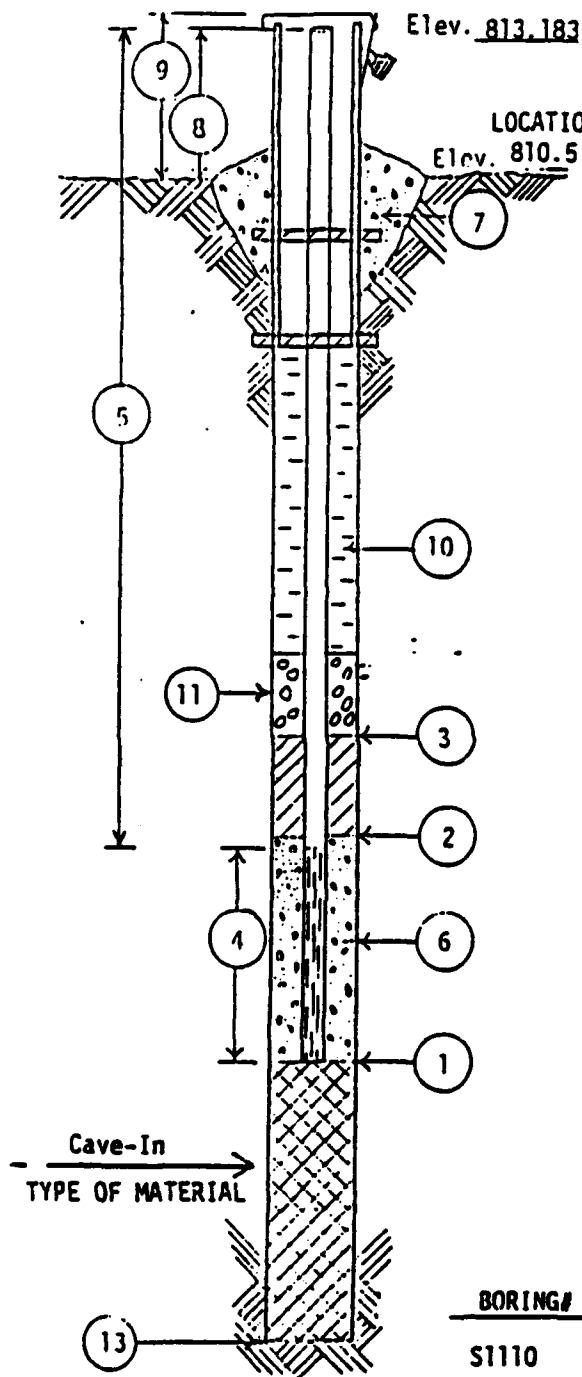
BORING NO. S1110

DATE 1/15/80

CHIEF HFS

LOCATION N486,476.12 E2,073,302.11

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 62 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 12 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 11 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.24 FEET. 18.98 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 44.41 FEET
Ø 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.7 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.7
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
5.6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 3 FEET.
- 12 DEPTH TO FIRST COUPLING 3.62 FEET. (TOC)
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 66 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1110	2/19/80		45.76	767.42

Radger Army Ammunition Plant
 Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

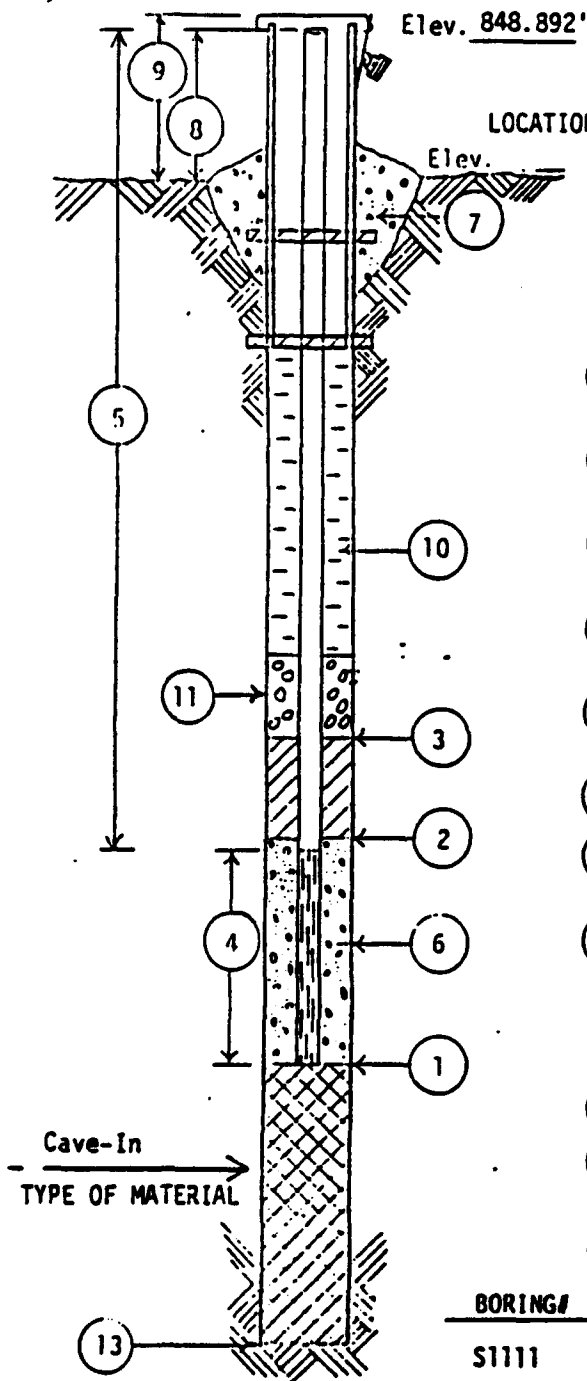
JOB NO. C 8742

BORING NO. S1111

DATE 1/2/80

CHIEF HFS

LOCATION N487,413.09 E2,075,847.11



All depth measurements of well detail
 to be from ground surface.

- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 99 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 9 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 8 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 20.24 FEET. 18.92 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 20.93 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.4 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.4
 LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement/Bentonite Grout
- ⑪ THICKNESS OF GRAVEL PACK 1 5.6:1 by weight FEET.
- ⑫ DEPTH TO FIRST COUPLING 9.32 FEET. (TOC)
 COUPLING INTERVAL 10.23 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 102 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1111	2/19/80		79.34'	769.55'

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

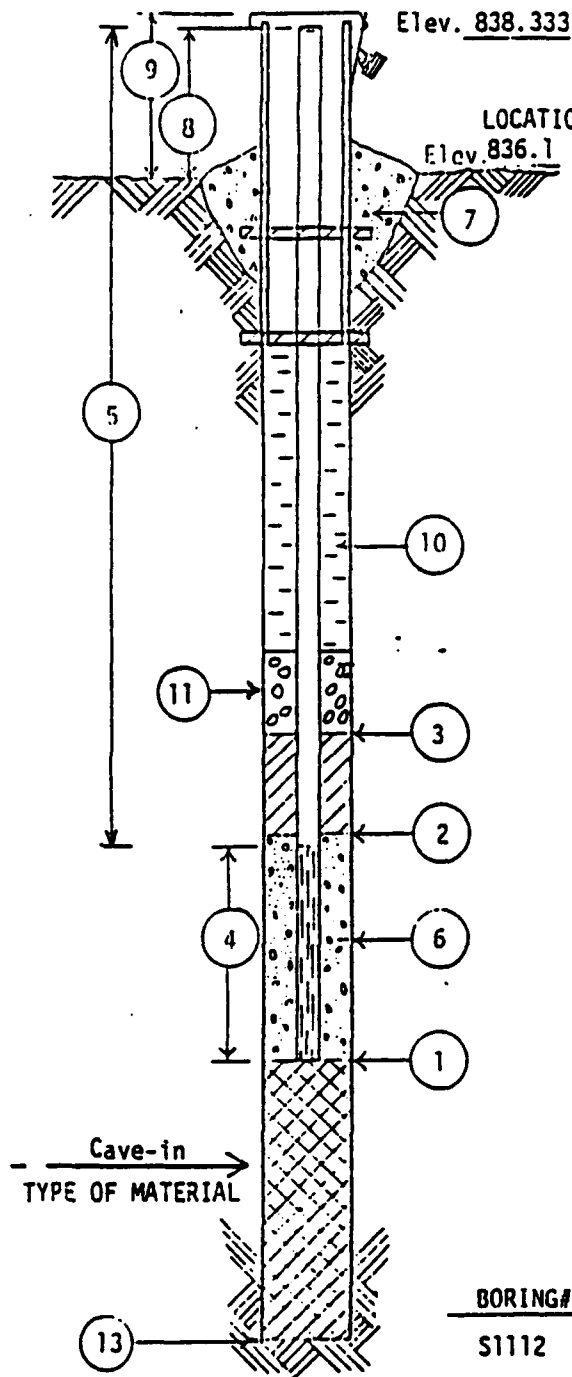
BORING NO. S1112

DATE 1/4/80

CHIEF HFS

LOCATION N409,049.07 E2,076,746.15

All depth measurements of well detail
to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 91.7 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 11 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 10 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 20.26 FEET. 19.3 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 73.56 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Cave-in.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.1 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND _____
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement/Bentonite Grout 5.6:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK 1 FEET.
- ⑫ DEPTH TO FIRST COUPLING 2.2 FEET. (From TOC)
COUPLING INTERVAL 10.19 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 96 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1112	2/19/80		65.38	772.95

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

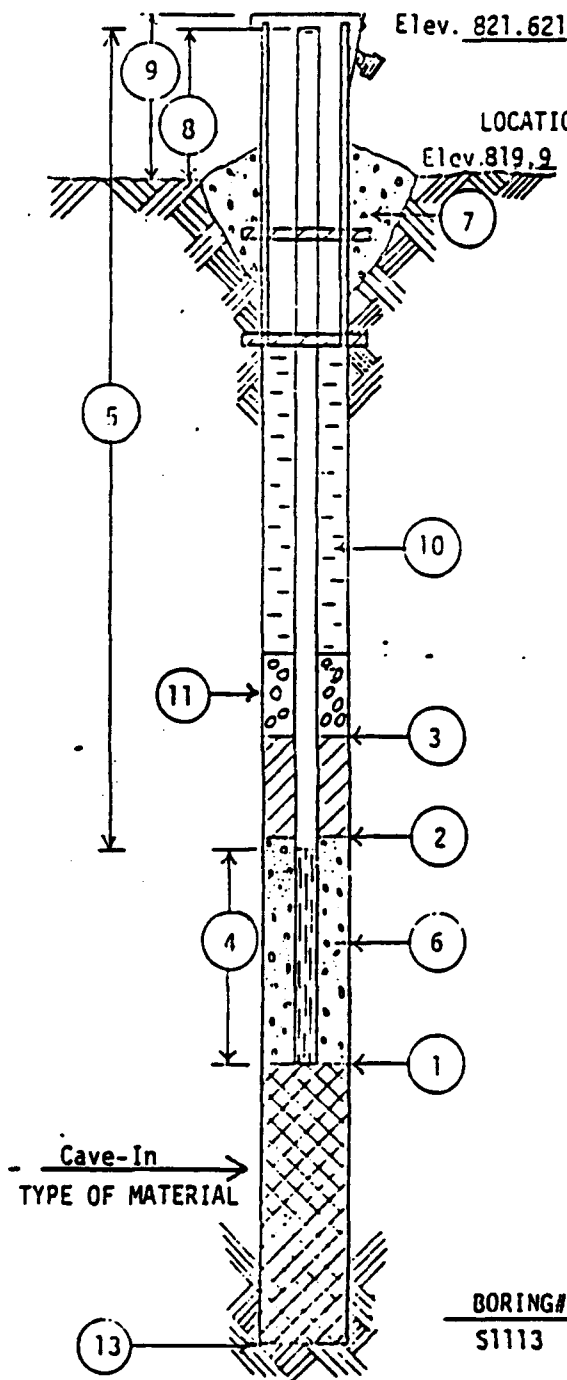
BORING NO. S1113

DATE 11/23/79

CHIEF HFS

LOCATION N491,611.53 E2,079,573.54

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 66.13 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
39 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
38 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.23 FEET. 18.91 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 47.60 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
1.70 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND _____
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
3:1 by weight
- 11 THICKNESS OF GRAVEL PACK 6 FEET.
- 12 DEPTH TO FIRST COUPLING 6.76 FEET. (TOC)
COUPLING INTERVAL 10.19 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 67 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1113	2/19/80		47.34	774.28

N :e: S1114 nearest sampled boring

Radger Army Ammunition Plant
 Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

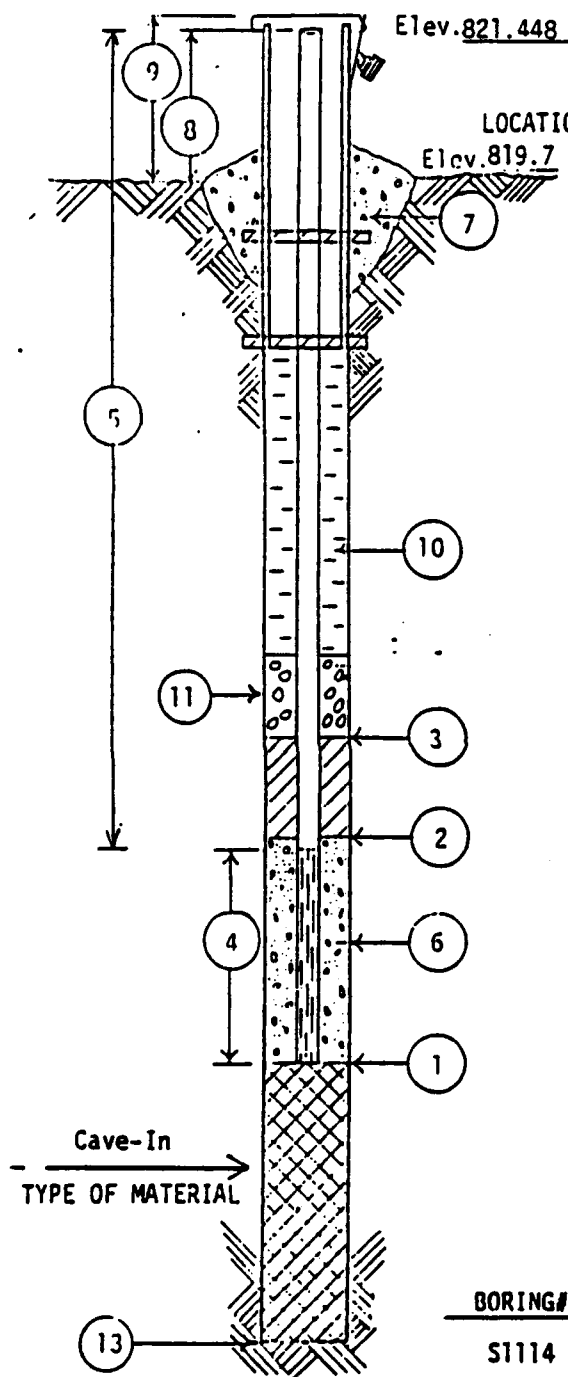
BORING NO. S1114

DATE 11/20/79

CHIEF HES

LOCATION N491,603.29 E2,079.574.42

All depth measurements of well detail
 to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 105.35 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 95.5 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 94.5 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 5.02 FEET. 4.43 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 102.03 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 1.7 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND
 LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement Bentonite Grout 3:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK 3.5 FEET.
- ⑫ DEPTH TO FIRST COUPLING 9.08 FEET. (TOC)
 COUPLING INTERVAL 10.2 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 106 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1114	2/19/80		47.15	774.30

Radger Army Ammunition Plant
Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

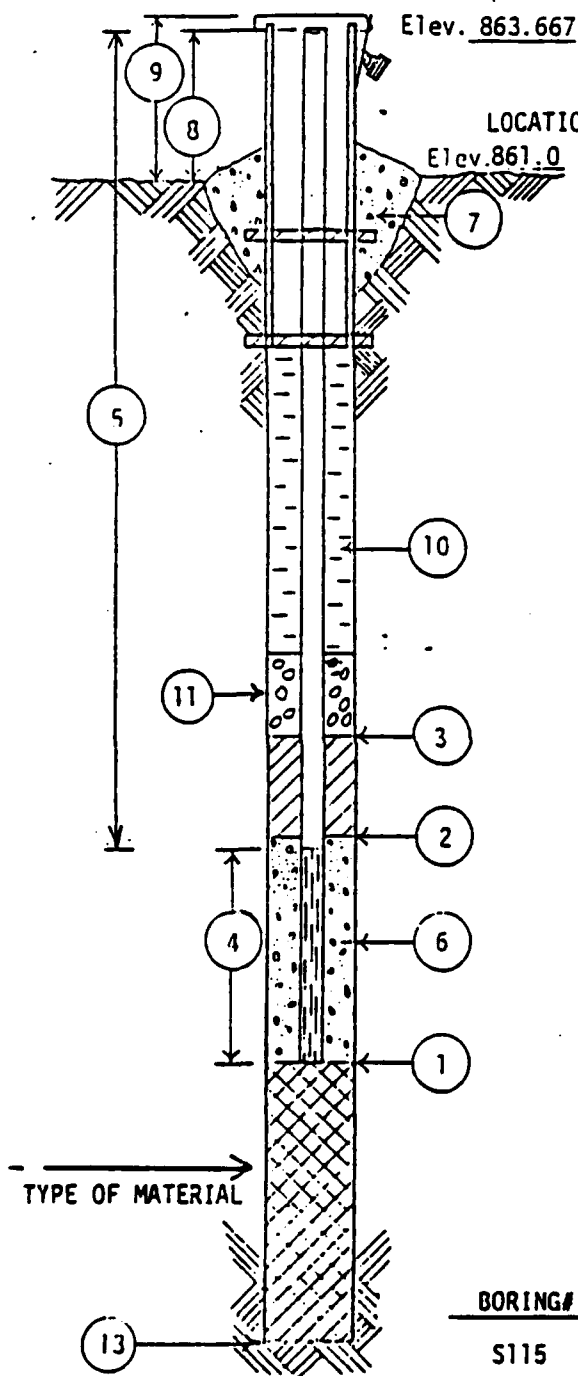
BORING NO. S1115

DATE 12/14/79

CHIEF HFS

LOCATION N490.444.29 E2.070.340.79

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 110 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 12'1" FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 11 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.39 FEET. Feet Slotted
- 5 TOTAL LENGTH OF PIPE 92 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.7 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 3.1'
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
5.6 to 1 by weight
- 11 THICKNESS OF GRAVEL PACK 3 FEET.
- 12 DEPTH TO FIRST COUPLING 10.21 FEET.
COUPLING INTERVAL 10.22 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 110 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1115	2/19/80		89.56'	774.11'

Note: S1116 nearest sampled boring

Badger Army Ammunition Plant
Jaraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

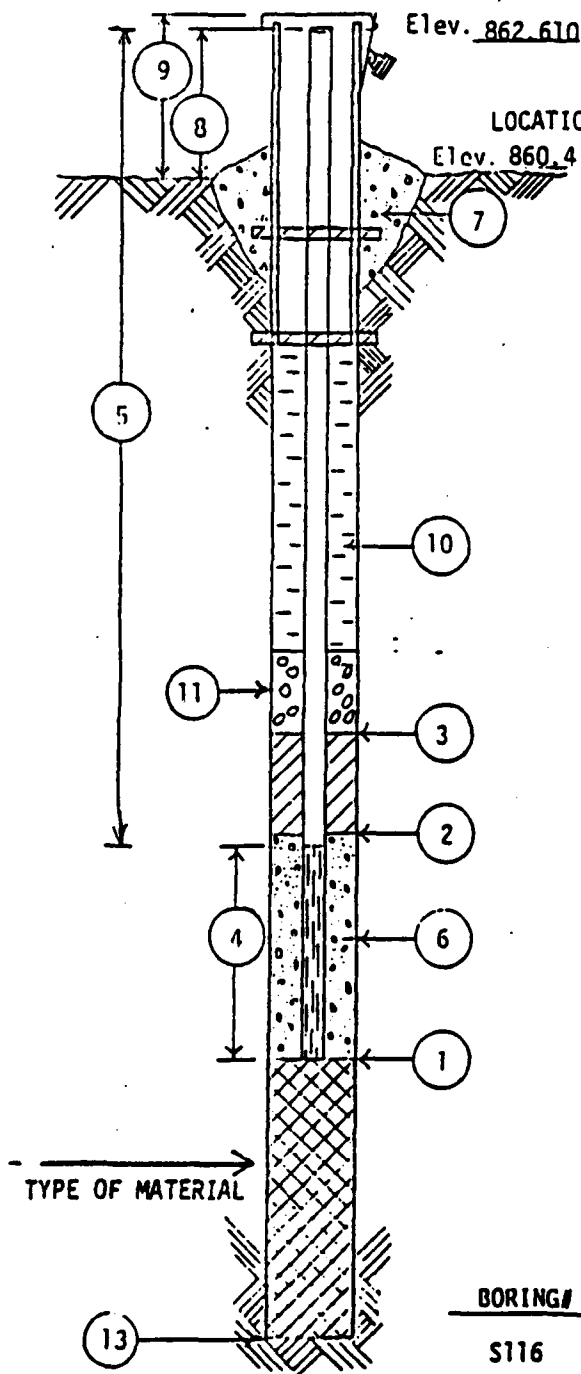
JOB NO. C 8742

BORING NO. S1116

DATE 12/13/79

CHIEF HFS

LOCATION N490,445.70 E,2070,359.29



All depth measurements of well detail
to be from ground surface.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 141.4 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 98.1 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 97 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 5.22 FEET. 4.55 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 138.32 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Cave-In Medium Sand
- 7 CONCRETE CAP, YES ☒ NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.2 FEET.
- 9 PROTECTIVE CASING? YES ☒ NO (Circle One)
HEIGHT ABOVE GROUND 4'
LOCKING CAP? YES ☒ NO (Circle One)
- 10 TYPE OF BACKFILL: Cement-Bentonite Grout 5.6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 5 FEET.
- 12 DEPTH TO FIRST COUPLING 5.43 FEET. (TOC)
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 141.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S116	2/19/80		90.65	771.96

Radger Army Ammunition Plant
Maraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

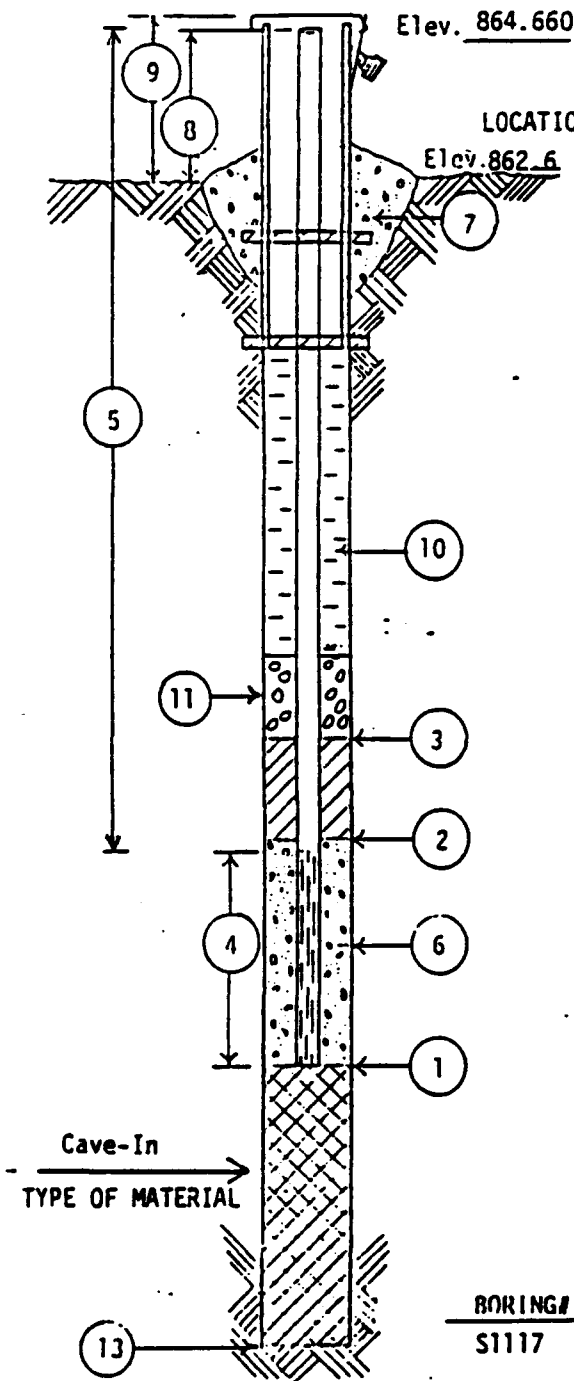
BORING NO. S1117

DATE 2/13/80

CHIEF HFS

LOCATION N490,354.23 E2,066,372.44

All depth measurements of well detail
to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 119.07 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 11 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 10 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 20.22 FEET. 19.06 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 100.90 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.05 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.05
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement/Bentonite Grout 6:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK 2 FEET.
- ⑫ DEPTH TO FIRST COUPLING 8.99 FEET. (TOU)
COUPLING INTERVAL 10.21 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 120 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1117	2/19/80		92.14	772.52

WELL DETAIL INFORMATION SHEET

JOB NO. C 87-2

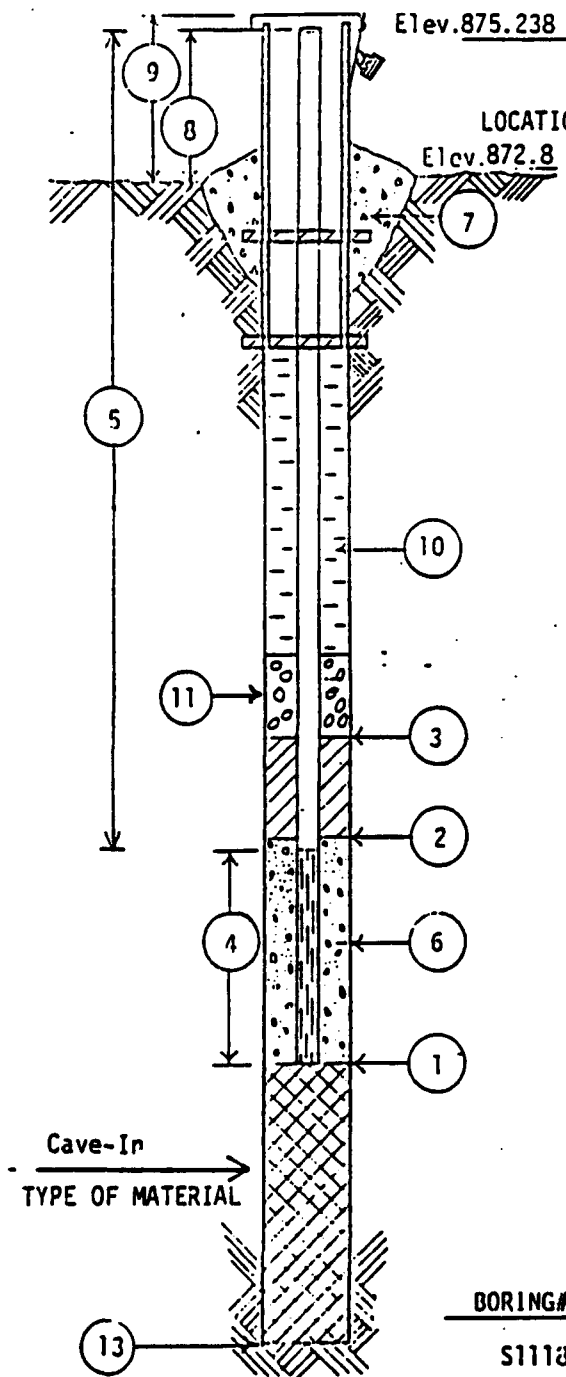
BORING NO. S1118

DATE 11/30/79

CHIEF HFS

LOCATION N492,933.24 E2,072,320.48

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 108.4 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
85 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
83 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.23 FEET. 18.94 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 90.56 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.4 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND _____
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/ Bentonite Grout
- 11 THICKNESS OF GRAVEL PACK 5 FEET.
- 12 DEPTH TO FIRST COUPLING 3.79 FEET. (TOC,
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 110 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1118	2/19/80		99.75	775.49

Madger Army Ammunition Plant
Maraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

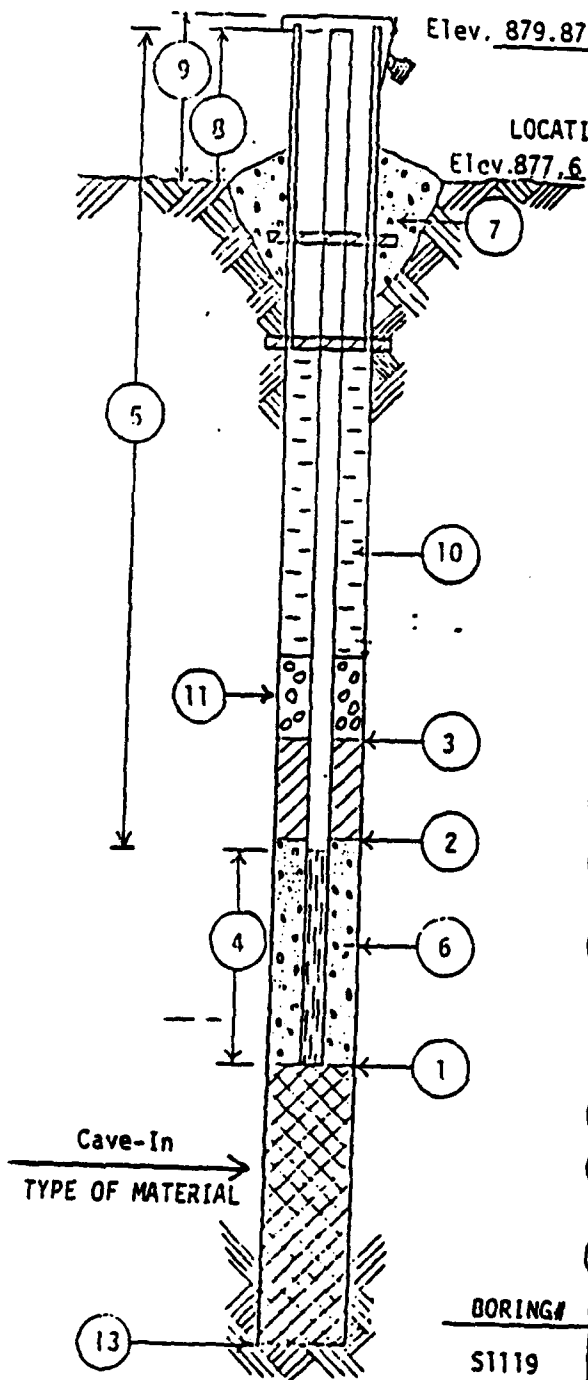
BORING NO. S1119

DATE 1/22/80

CHIEF HFS

LOCATION N496,201.38 E2,072,983.10

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 119.66 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 12 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 11 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.07 FEET. 18.94 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 101.79 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.2 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.2
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 3 FEET.
- 12 DEPTH TO FIRST COUPLING 9.90 FEET. Frc
COUPLING INTERVAL 10.21 FEET. (TCC)
- 13 TOTAL DEPTH OF BOREHOLE 121 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1119	2/19/80		102.86	777.01

WELL DETAIL INFORMATION SHEET

JOB NO. C 9742

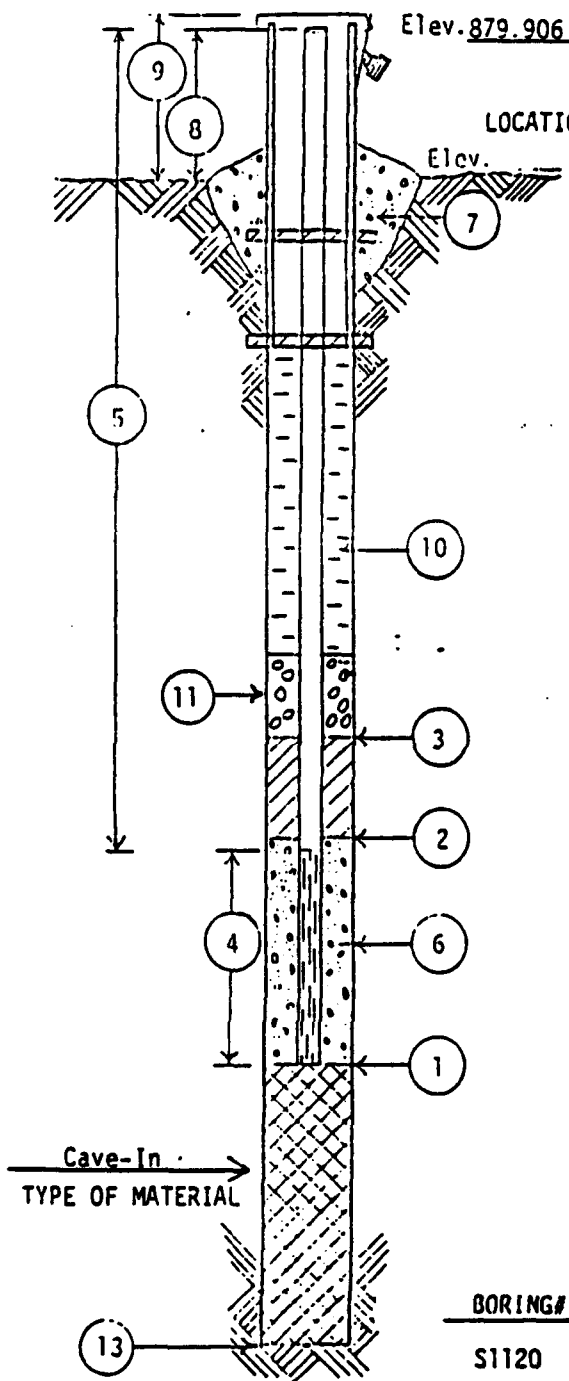
BORING NO. S1120

DATE 1/17/80

CHIEF HFS

LOCATION N493,313.14 E2,075,597.06

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 122.81 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
12 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
11 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.18 FEET. 18.94 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 105.48 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.85 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND _____
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 2 FEET.
- 12 DEPTH TO FIRST COUPLING 3.14 FEET. From
COUPLING INTERVAL 10.23 FEET. (TOC)
- 13 TOTAL DEPTH OF BOREHOLE 125 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1120	2/19/80		104.54	775.37

Badger Army Ammunition Plant
Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

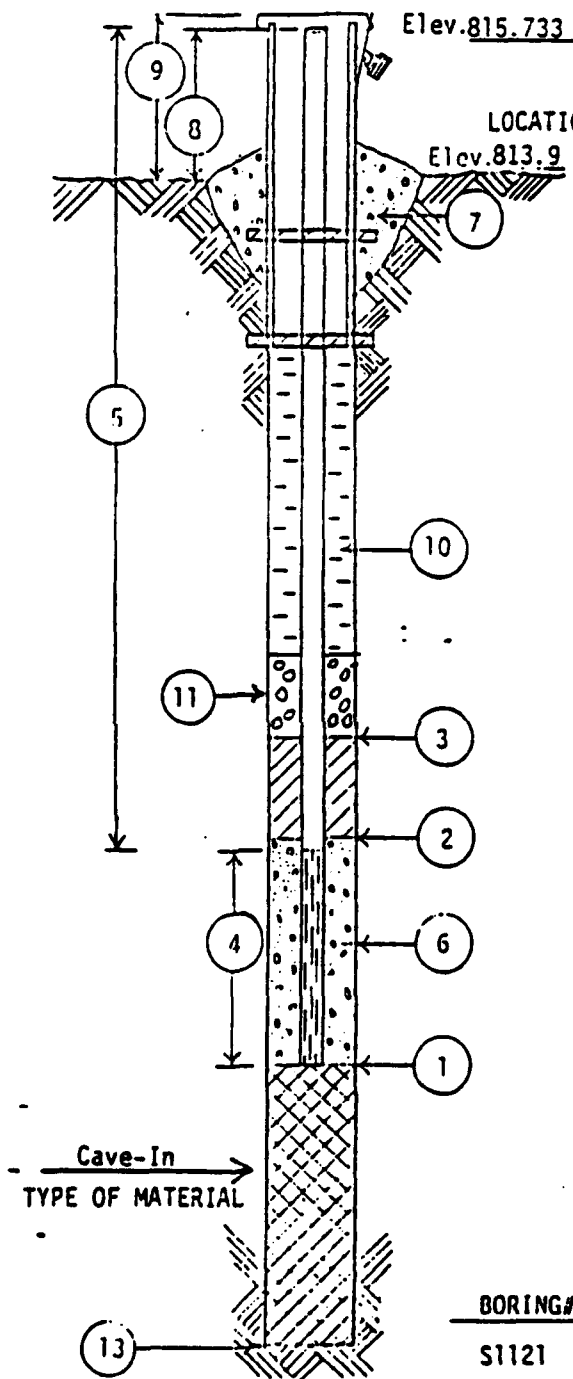
BORING NO. S1121

DATE 1/18/80

CHIEF HFS

LOCATION N496,296.77 E2,079.127.02

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 59.3 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 12 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 11 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.19 FEET. 18.94 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 40.92 FEET @ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 1.8 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 1.8
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout 6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 3 FEET.
- 12 DEPTH TO FIRST COUPLING 10.23 FEET. (TO
COUPLING INTERVAL 10.23 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 61 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1121	2/19/80		39.74	775.99

Madger Army Ammunition Plant
Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

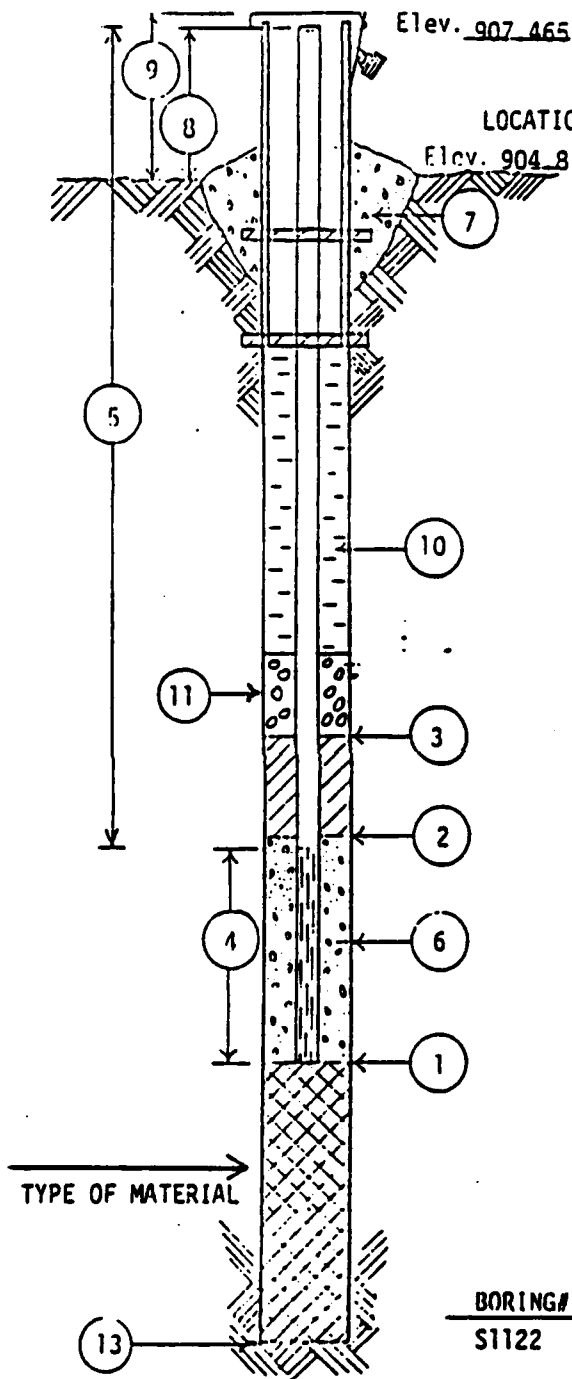
JOB NO. C 8742

BORING NO. S1122

DATE 1/25/80

CHIEF HFS

LOCATION N500,702.29 E2,074,444.43



All depth measurements of well detail
to be from ground surface.

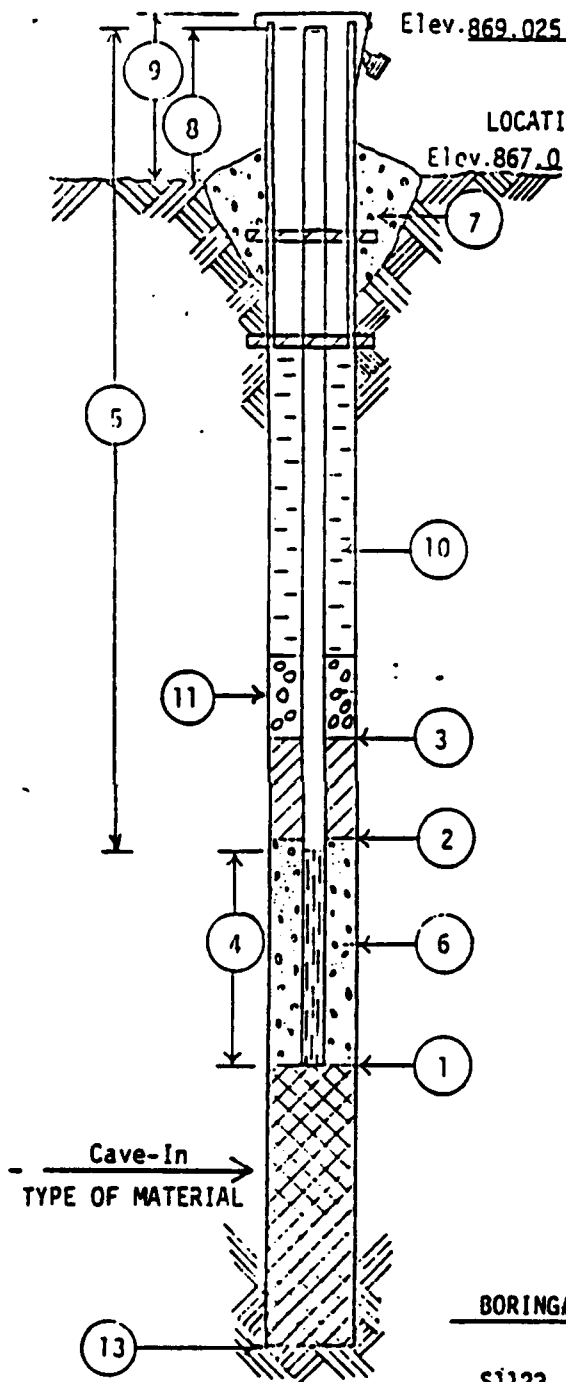
- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 144 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 9 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 8 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.18 FEET. 18.54 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 126.44 FEET @ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES ☒ NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.6 FEET.
- 9 PROTECTIVE CASING? ☒ YES ☐ NO (Circle One)
HEIGHT ABOVE GROUND 2.6
LOCKING CAP? ☒ YES ☐ NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout 6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 2 FEET.
- 12 DEPTH TO FIRST COUPLING 3.89 FEET. (TOC)
COUPLING INTERVAL 10.20 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 144 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1122	2/19/80		128.70	778.77

WELL DETAIL INFORMATION SHEET:

CHIEF JR

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 134.32 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
10.0 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
6.5 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.42 FEET. 19.0 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 115.90 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Cave-in Material
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.00 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND _____
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
- 11 THICKNESS OF GRAVEL PACK 0.5 FEET
- 12 DEPTH TO FIRST COUPLING 1.50 FEET
COUPLING INTERVAL 10.2 FEET
- 13 TOTAL DEPTH OF BOREHOLE 135 FEET

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1123	2/19/80		87.28	781.75

WELL DETAIL INFORMATION SHEET

JOB NO. C 8742

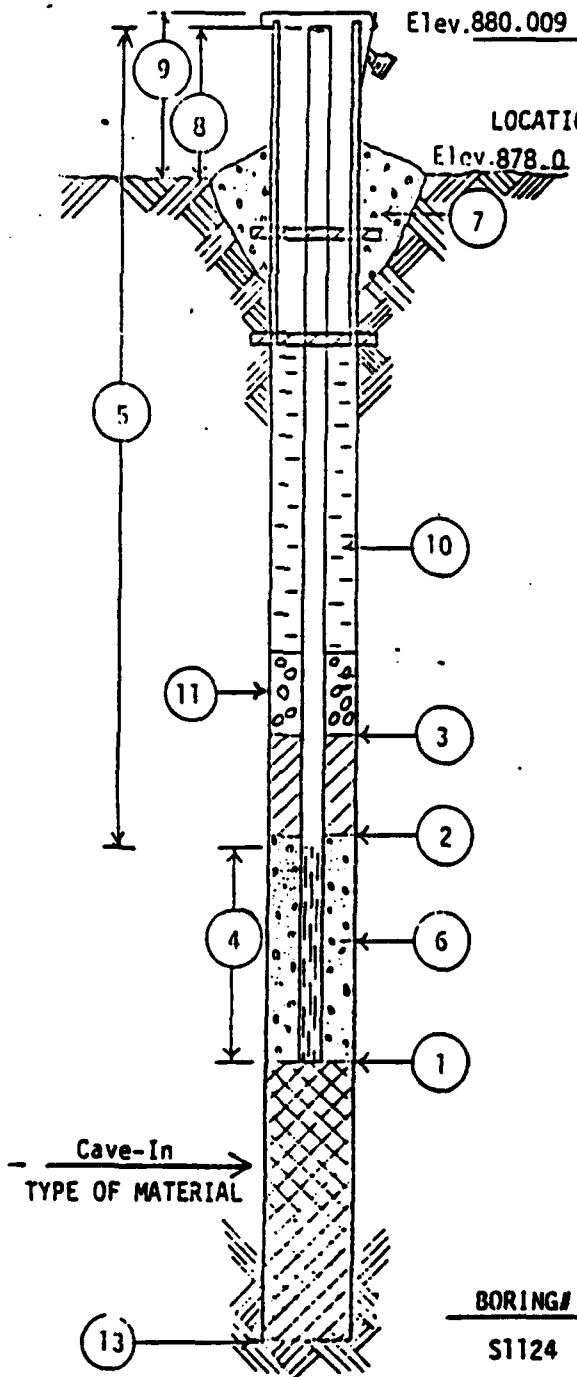
BORING NO. S1124

DATE 12/19/79

CHIEF J. Rose

LOCATION N497,938.40 E2,072,925.10

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 128.77 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
10.00 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
9.0 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.16 FEET. 18.86 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 110.61 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Cave-In Material & Medium Sand
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.0 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.0
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cave-in Material & Medium Sand
- 11 THICKNESS OF GRAVEL PACK - FEET.
- 12 DEPTH TO FIRST COUPLING 8.61 FEET. From
COUPLING INTERVAL 10.21 FEET. (TOC)
- 13 TOTAL DEPTH OF BOREHOLE 130.00 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1124	2/19/80		100.19	779.82

Madger Army Ammunition Plant WELL DETAIL INFORMATION SHEET
 Araboo, Wisconsin

JOB NO. C 8742

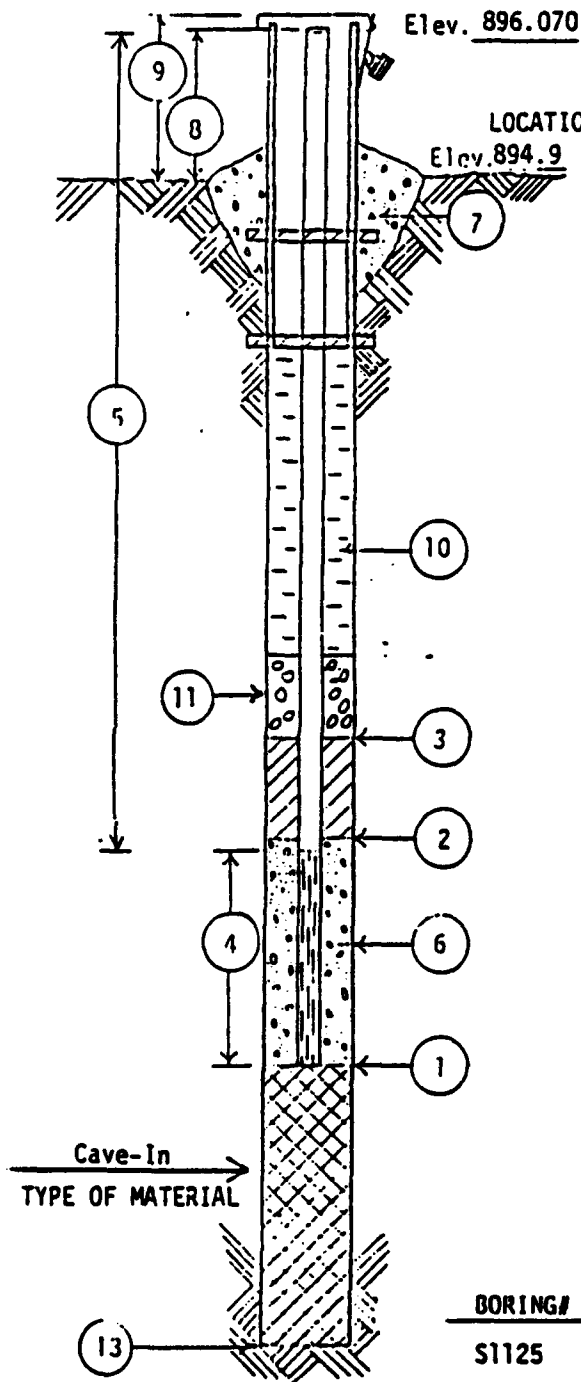
BORING NO. S1125

DATE 12/27/79

CHIEF HFS

LOCATION N496,507.67 E2,067,952.90

All depth measurements of well detail
 to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 126.3 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 7 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 6 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 20.22 FEET. 18.91 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 107.29 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 1.2 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 3.5
 LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement/Bentonite Grout
5.6:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK 1 FEET.
- ⑫ DEPTH TO FIRST COUPLING 5.00 FEET. (T)
 COUPLING INTERVAL 10.23 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 126.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1125	2/19/80		118.70	777.37

WELL DETAIL INFORMATION SHEET

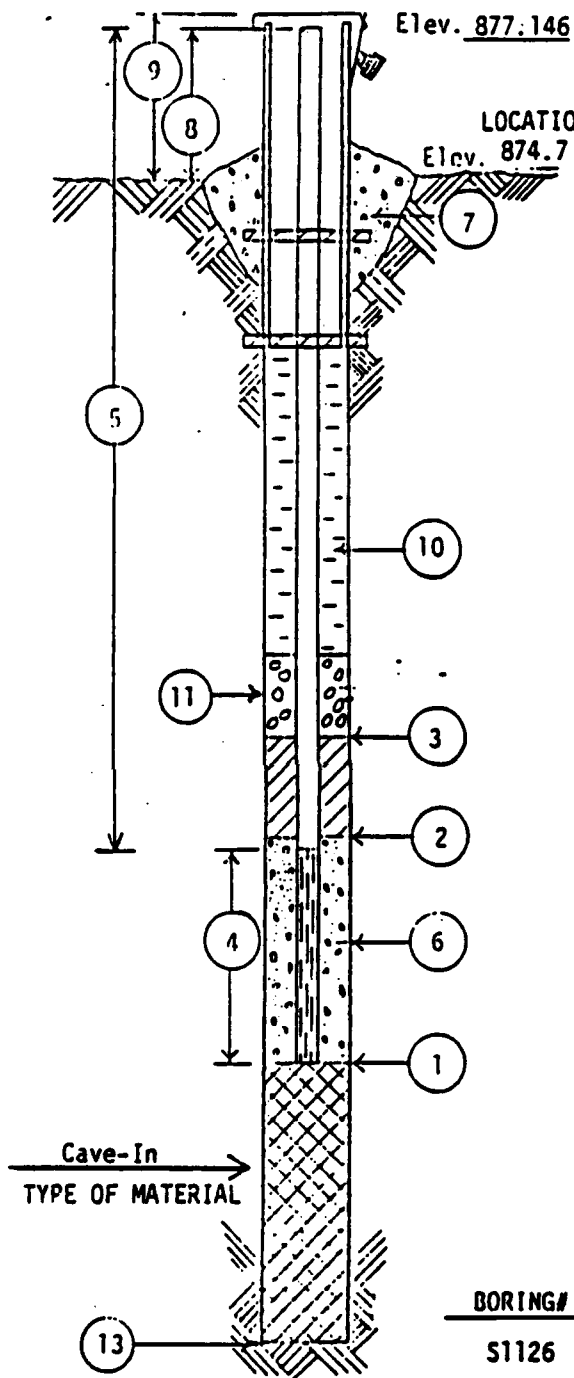
BORING NO. S1126

DATE 2/11/80

CHIEF HFS

LOCATION N500.012.88 E2,063.332.17

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 113.55 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
12 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
11 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
19.86 FEET. 18.92 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 96.14 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.45 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.45
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 3 FEET.
- 12 DEPTH TO FIRST COUPLING 4.28 FEET. (TOC)
COUPLING INTERVAL 10.21 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 116.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
51126	2/19/80		89.68	787.47

WELL DETAIL INFORMATION SHEET

JOB NO. C 3742

BORING NO. S1127

DATE 2/8/80

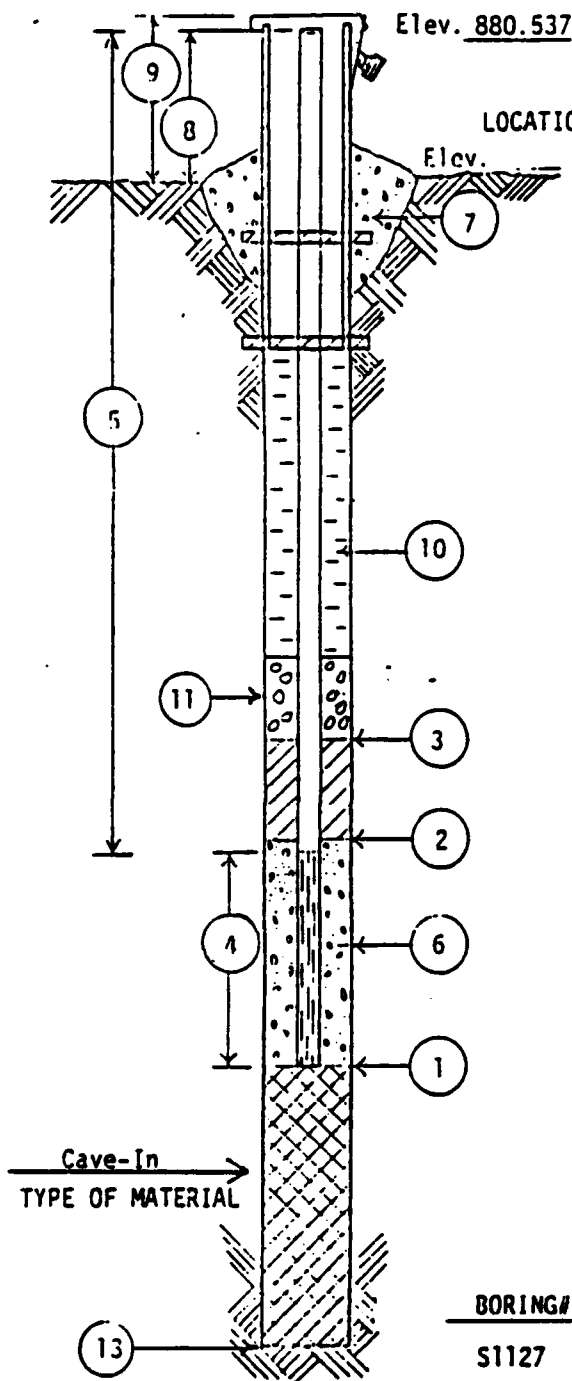
CHIEF HFS

LOCATION N503,380.50 E2,063,312.68

All depth measurements of well detail
to be from ground surface.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 74.84 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
11 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
10 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.25 FEET. 19.19 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 56.82 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.23 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.23
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
3:1 by weight
- 11 THICKNESS OF GRAVEL PACK 2 FEET.
- 12 DEPTH TO FIRST COUPLING 5.70 FEET. (TO
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 75 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1127	2/19/80		65.51	815.03



JOB NO. C 9742

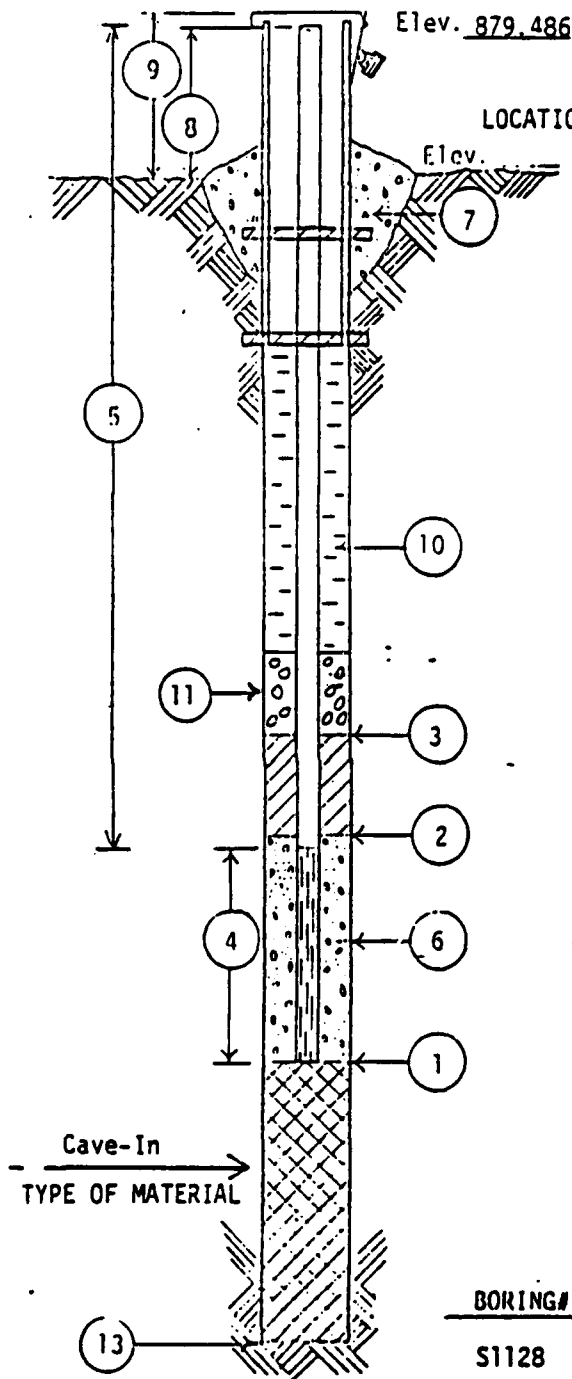
BORING NO. S1128

DATE 12/19/79

CHIEF HFS

LOCATION N504,039.19 E2,062,711.52

All depth measurements of well detail
to be from ground surface.



- ① DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 74.43 FEET.
- ② DEPTH OF BOTTOM OF SEAL (if installed) 11.25 FEET.
- ③ DEPTH TO TOP OF SEAL (if installed) 10.25 FEET.
- ④ LENGTH OF PVC WELL SCREEN, 20.39 FEET. 19.03 Feet Slotted
- ⑤ TOTAL LENGTH OF PIPE 56.34 FEET @ 4 I.D. IN. DIAMETER.
- ⑥ TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Cave-In.
- ⑦ CONCRETE CAP, YES NO (Circle One)
- ⑧ HEIGHT OF WELL CASING ABOVE GROUND 2.3 FEET.
- ⑨ PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.4
LOCKING CAP? YES NO (Circle One)
- ⑩ TYPE OF BACKFILL: Cement Bentonite Grout 5.6:1 by weight
- ⑪ THICKNESS OF GRAVEL PACK 3 FEET.
- ⑫ DEPTH TO FIRST COUPLING 5.2 FEET. (From TOC)
COUPLING INTERVAL 10.2 FEET.
- ⑬ TOTAL DEPTH OF BOREHOLE 75 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1128	2/19/80		56.22	823.27

WELL DETAIL INFORMATION SHEET

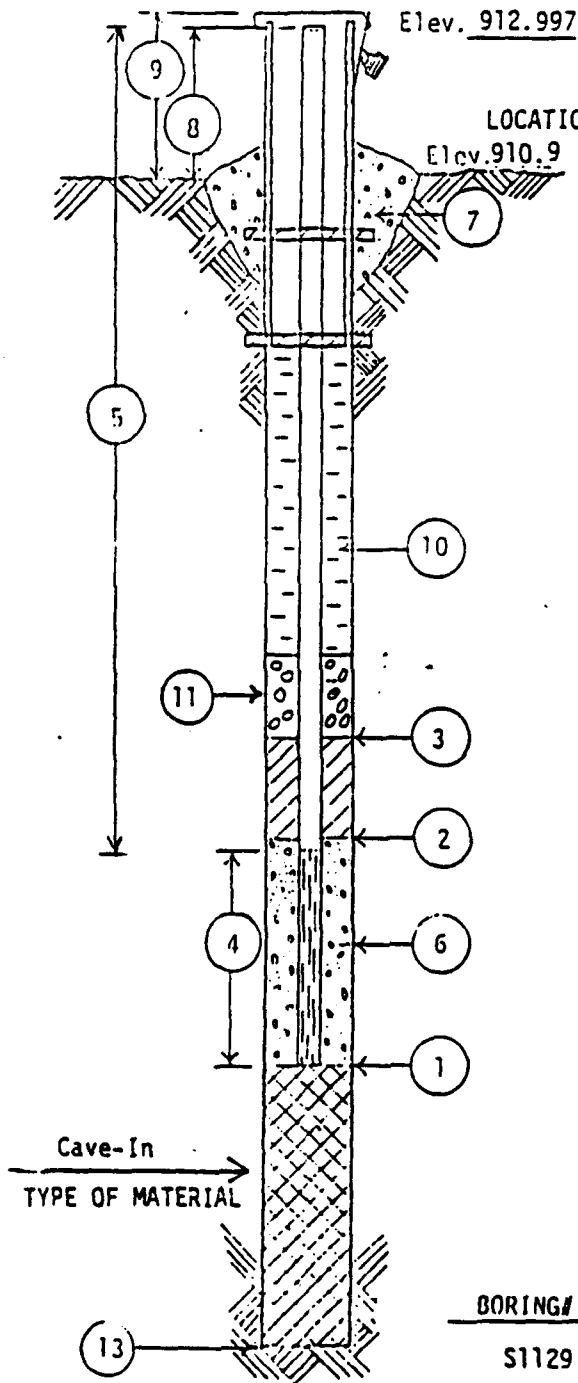
BORING NO. S1129

DATE 2/7/80

CHIEF HFS

LOCATION N503,571.75 E2,068,121.29

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 117.96 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
8 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
7 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.01 FEET. 19.02 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 100.00 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.05 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.05
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 1 FEET.
- 12 DEPTH TO FIRST COUPLING 9.03 FEET. (To
COUPLING INTERVAL 10.22 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 120 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1129	2/19/80		83.86	829.14

WELL DETAIL INFORMATION SHEET

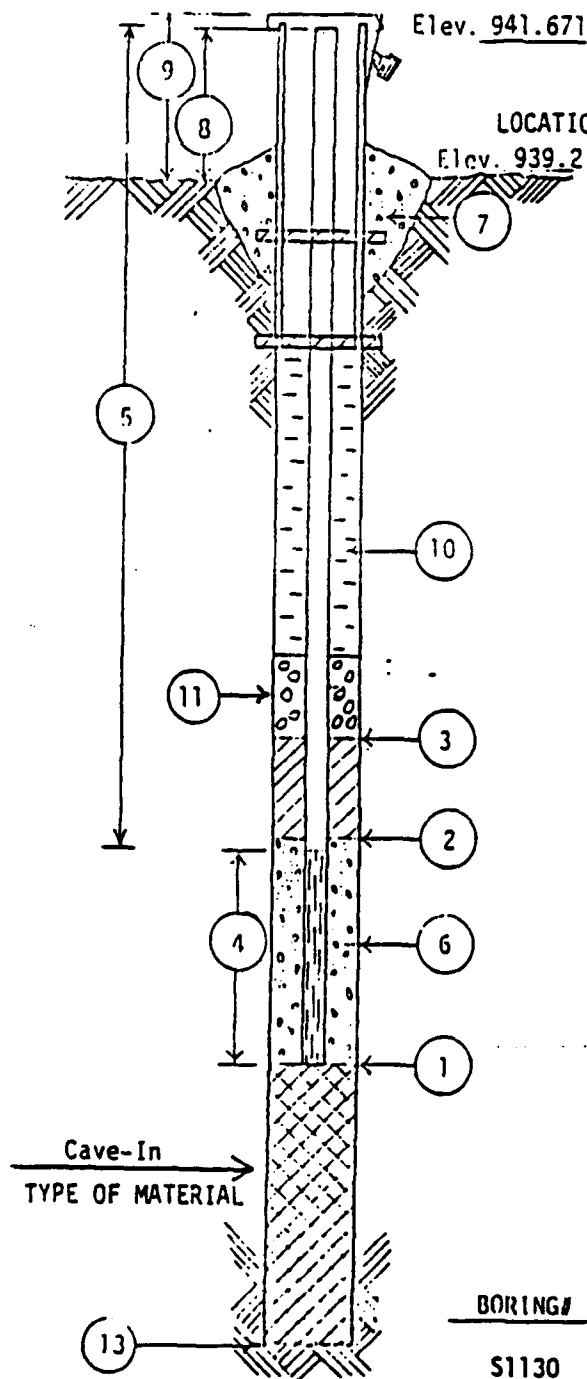
BORING NO. S1130

DATE 12/17/79

CHIEF HFS

LOCATION N504,611.11 E2,071,659.47

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 124.44 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
10 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
9 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
20.25 FEET. Feet Slotted
- 5 TOTAL LENGTH OF PIPE 106.64 FEET
@ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Cave-In.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 3.62
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
3:1 by weight
- 11 THICKNESS OF GRAVEL PACK 1 FEET.
- 12 DEPTH TO FIRST COUPLING 4.52 FEET. From
COUPLING INTERVAL 10.2 FEET. (TOC)
- 13 TOTAL DEPTH OF BOREHOLE 125 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1130	2/19/80		80.94	860.73

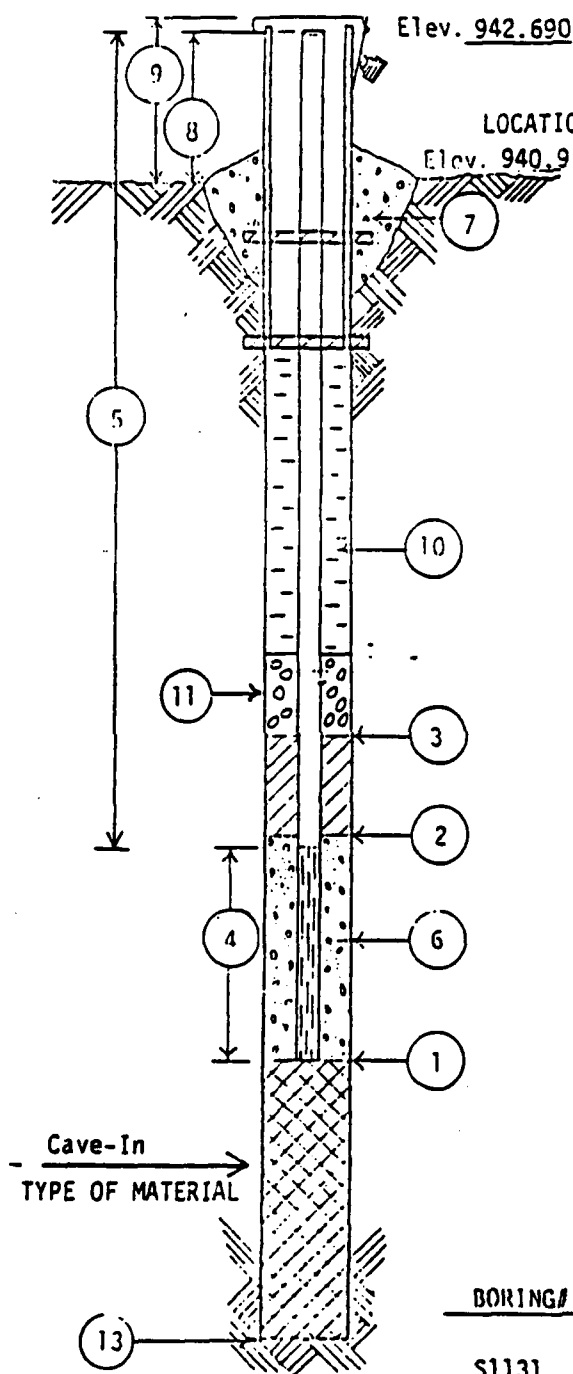
Note: S1131 Nearest sampled boring

WELL DETAIL INFORMATION SHEET

BORING NO. S1131

CHIEF J. Rose

All depth measurements of well detail
to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 153.49 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
135.0 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
125.0 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
5.20 FEET. 4.6 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 150.08 FEET
@ 4.10 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
1.79 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 3
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout
6.5:1 by weight
- 11 THICKNESS OF GRAVEL PACK 5 FEET.
- 12 DEPTH TO FIRST COUPLING 5.80 FEET.
COUPLING INTERVAL 10.2 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 155 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1131	2/19/80		105.40	837.29

Madger Army Ammunition Plant
Maraboo, Wisconsin

WELL DETAIL INFORMATION SHEET

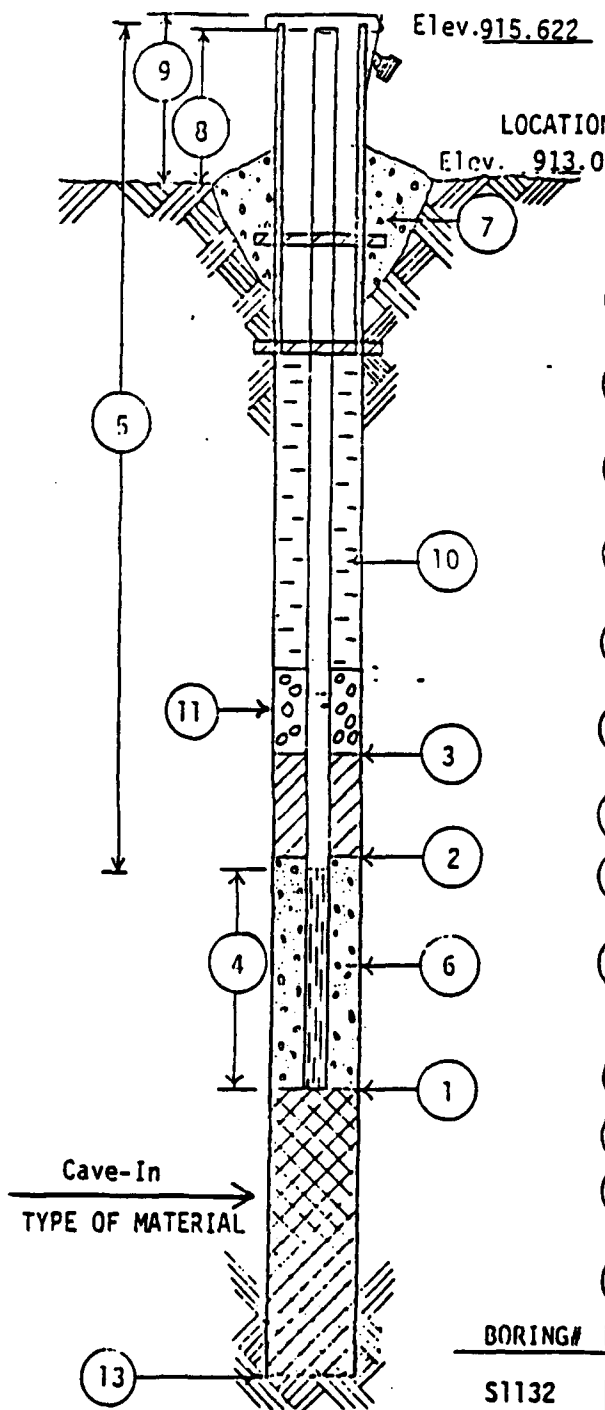
JOB NO. C 8742

BORING NO. S1132

DATE 2/4/80

CHIEF HFS

LOCATION N502,464.29 E2,072,997.91



All depth measurements of well detail
to be from ground surface.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 157.64 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 9 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 8 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 20.29 FEET. 18.35 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 140 FEET @ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.65 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.65
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout 6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 1 FEET.
- 12 DEPTH TO FIRST COUPLING 7.11 FEET. (T)
COUPLING INTERVAL 10.22 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 160 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1132	2/19/80		136.45	779.17

Madger Army Ammunition Plant
 Araboo, Wisconsin

WELL DETAIL INFORMATION SHEET

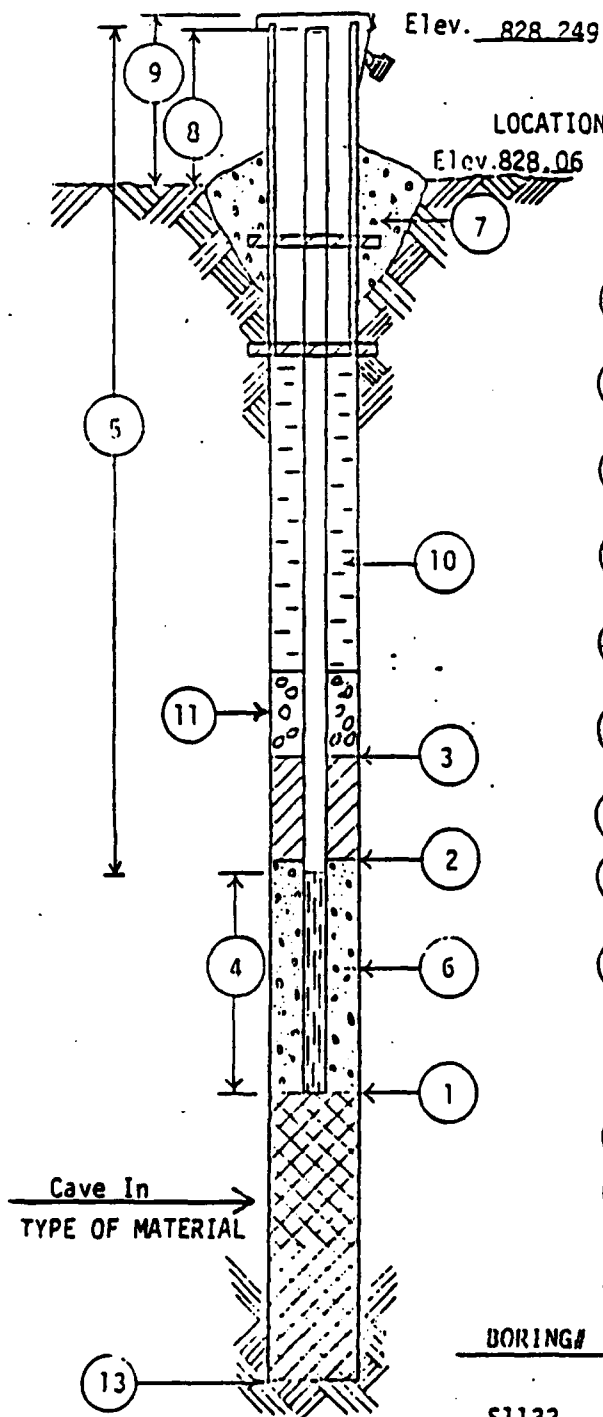
JOB NO. C 8742

BORING NO. S1133

DATE 2/19/80

CHIEF HFS

LOCATION N494,744.69 E2,064,454.40



All depth measurements of well detail
 to be from ground surface.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 97.00 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 90 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 89 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 5.16 FEET. 4.60 Feet Slotted
- 5 TOTAL LENGTH OF PIPE 92.03 FEET @ 4 I.D. IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Medium Sand.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND .19 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND .80
 LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Cement/Bentonite Grout 6:1 by weight
- 11 THICKNESS OF GRAVEL PACK 3 FEET
- 12 DEPTH TO FIRST COUPLING 10.23 FEET.
 COUPLING INTERVAL 10.23 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 100 FEET

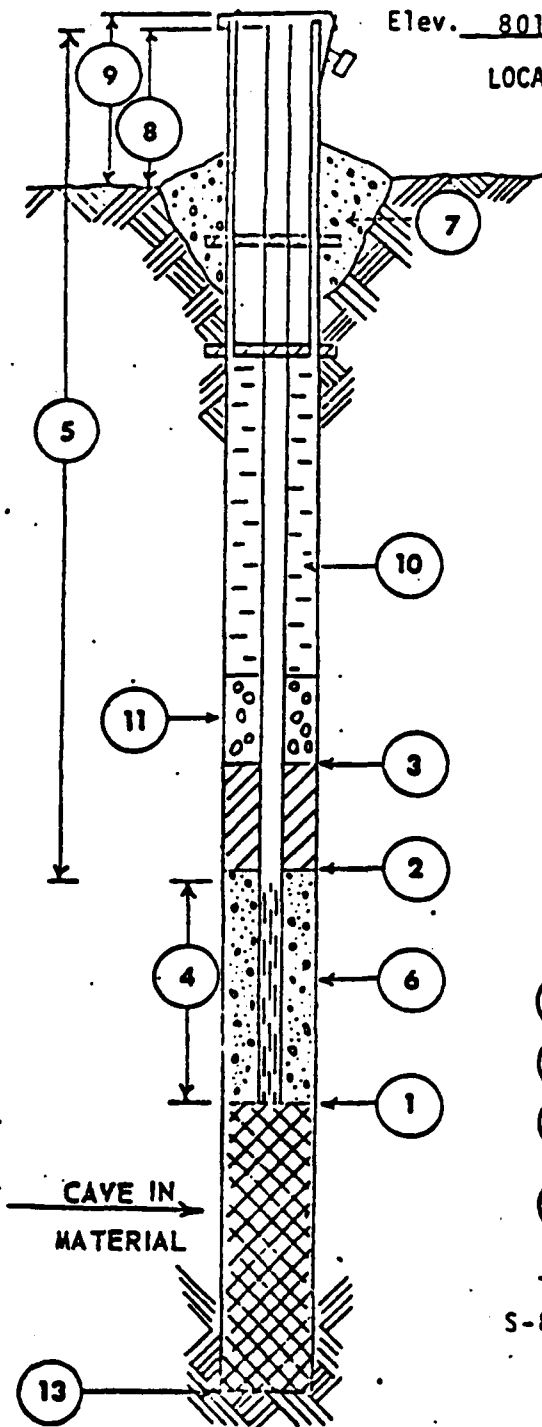
BORING#	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S1133	2/19/80		64.64	763.61

WELL DETAIL INFORMATION SHEET

JOB NO. 4910
BORING NO. S-83-1148
DATE 10-10-83
CHIEF R F Sarko and Associates, Inc.
LOCATION N 2,801.577 E 6,204.146

Elev. 801.82

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 56.67 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 27 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 19 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 25 FEET. 25 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 34 FEET @ 5 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.33 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 29 Inches
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite-Cement Mix 5' above
- 11 THICKNESS OF GRAVEL PACK Screen FEET.
- 12 DEPTH TO FIRST COUPLING 14 FEET (TOP)
COUPLING INTERVAL 20 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 76.67 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S-83-1148	5/5/83	2:05	From top of PVC 39.2 feet	762.62

WELL DETAIL INFORMATION SHEET

JOB NO. 4910

BORING NO. S-83-1147

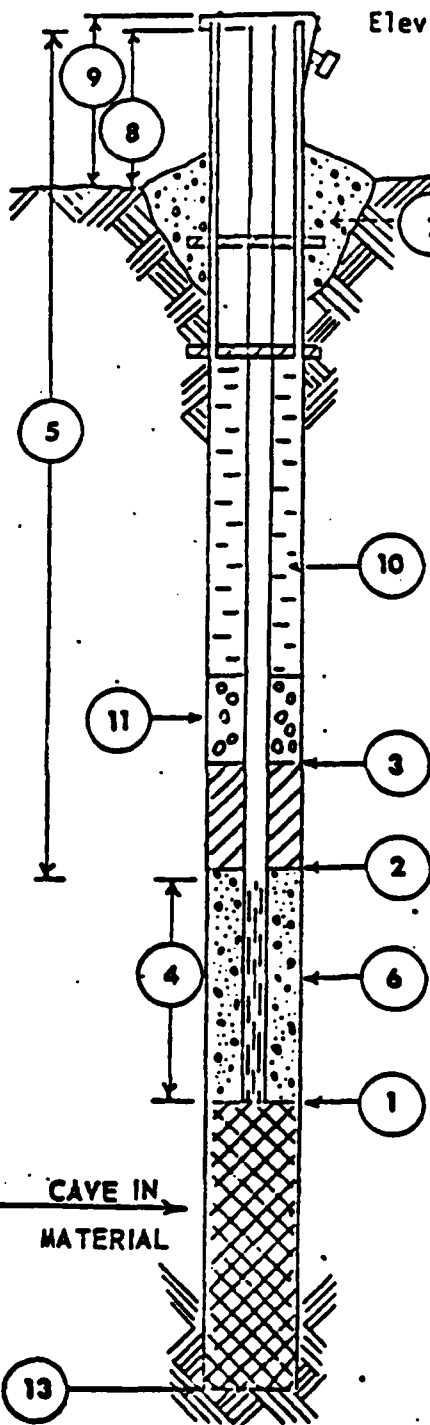
DATE 10-10-83

CHIEF R.F. Sarko and Associates, Inc.

Elev. 815.23

LOCATION N 3,021.422 E 5,149.283

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 70.75 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 41 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 33 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 25 FEET. 25 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 48 FEET
5 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE pea gravel.
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.25 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.42 feet
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite-Cement
5 feet
- 11 THICKNESS OF GRAVEL PACK above screen FEET.
- 12 DEPTH TO FIRST COUPLING 20 FEET (TOC)
COUPLING INTERVAL one at 8' then 20 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 90.75 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S-83-1147	5/5/83	1:42	From top of PVC 52.8 feet	762.43

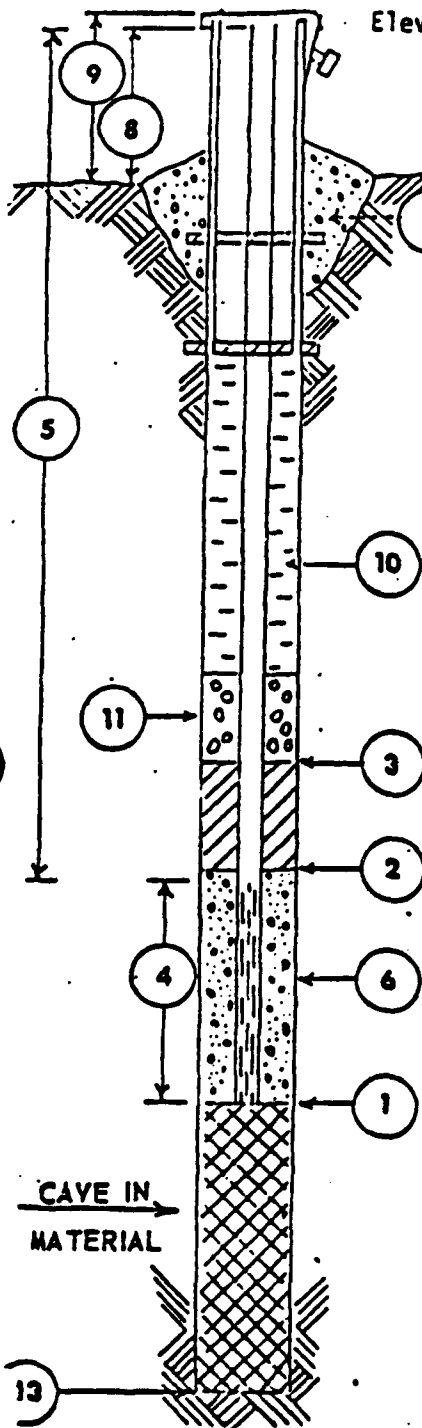
GEOLOGICAL & SOILS SURVEY
AND GROUNDWATER MONITORING PROJECT

SK-3932 SHEET 1 OF 6

WELL DETAIL INFORMATION SHEET

JOB NO. 4910
 BORING NO. S-83-1149
 DATE 10-10-83
 CHIEF R. F. Sarko and Associates, Inc.
 ELEV. 805.80
 LOCATION N 3.252.536 E 7.110.671

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 60.83 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 31 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 23 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 25 FEET. 25 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 38 FEET
5 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.17 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 28 inches
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite-Cement
- 11 THICKNESS OF GRAVEL PACK 5' above screen FEET.
- 12 DEPTH TO FIRST COUPLING 18 FEET (TOC)
COUPLING INTERVAL 20 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 80.83 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S-83-1149	5/5/83	2:20	From top of PVC 42.3 feet	763.50

WELL DETAIL INFORMATION SHEET

JOB NO. 4910

BORING NO. S-83-1150

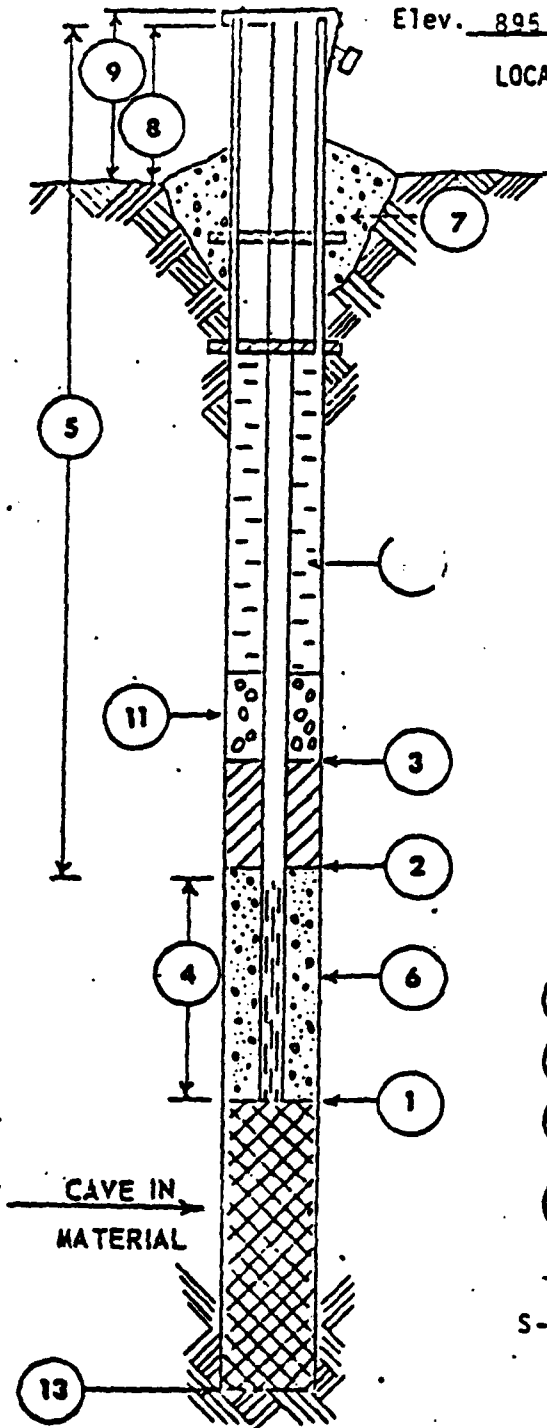
DATE 10-10-83

CHIEF R.F. Sarko and Associates, Inc.

LOCATION N 14.918 656 E 8.243 989

Elev. 895.81

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 135.25 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 105 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 97 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 25 FEET. 25 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 113 FEET
5 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.75 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 33 inches
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite-Cement
5' above
- 11 THICKNESS OF GRAVEL PACK screen FEET.
- 12 DEPTH TO FIRST COUPLING 13 FEET (TOC)
COUPLING INTERVAL 20 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 155.5 FEET.

BORING #	DATE	TIME	DEPTH TO WATER	GROUNDWATER ELEVATION
S-83-1150	5/5/83	2:55	From top of PVC 118.6'	777.21

GEOLOGICAL & SOILS SURVEY
AND GROUNDWATER MONITORING PROJECT

SK-3932 SHEET 1 OF 6

WELL DETAIL INFORMATION SHEET

JOB NO. 4910

BORING NO. S-83-1151

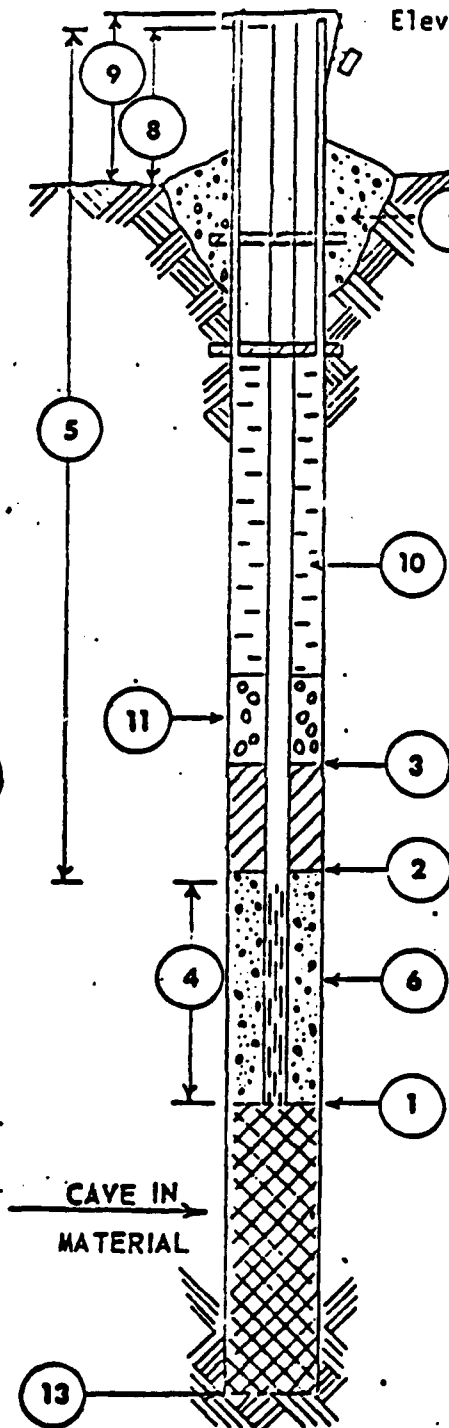
DATE 10-10-83

CHIEF R.F. Sarko and Associates, Inc.

Elev. 893.33

LOCATION N 21,898.327 E 12,254.520

All depth measurements of well detail to be from ground surface.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 131.42 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 101 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 93 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 25 FEET. 25 FEET SLOTTED
- 5 TOTAL LENGTH OF PIPE 109 FEET @ 5 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP. YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.58 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 33 inches
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: Bentonite-Cement 5' above screen
- 11 THICKNESS OF GRAVEL PACK screen FEET.
- 12 DEPTH TO FIRST COUPLING 9 FEET (TOC)
COUPLING INTERVAL 20 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 151.42 FEET.

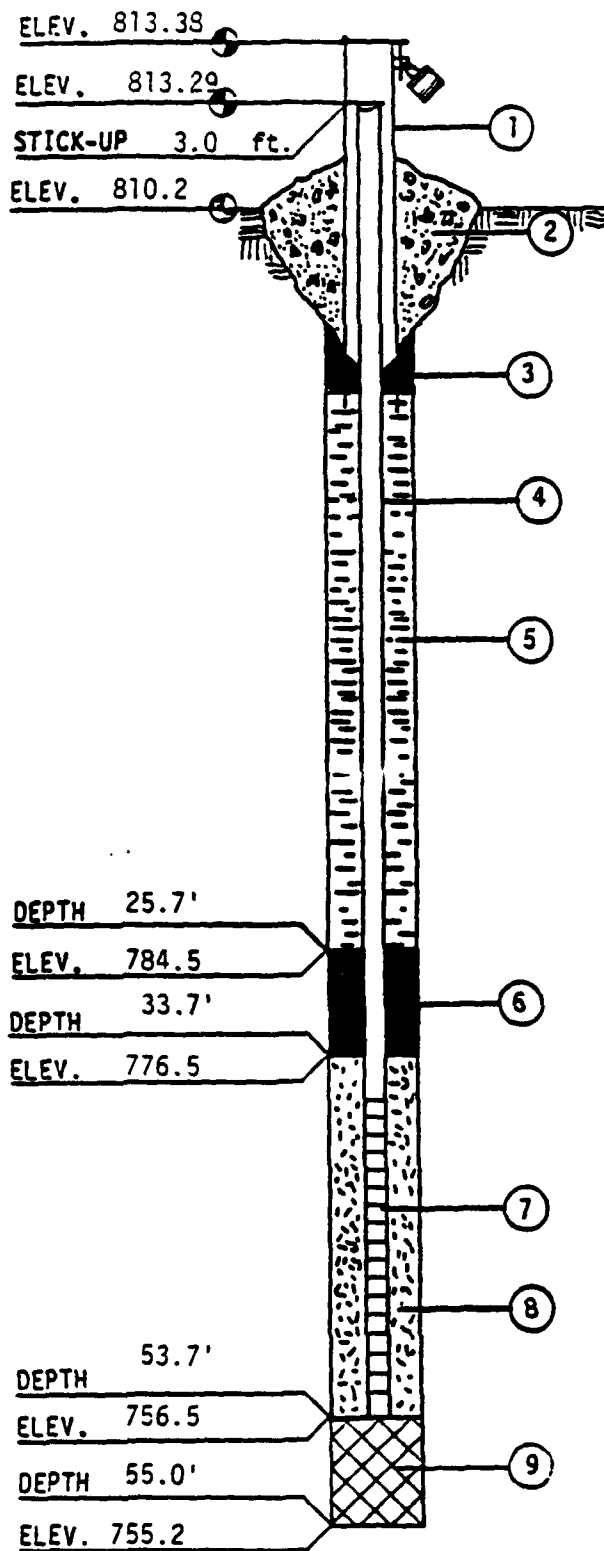
BORING # DATE TIME DEPTH TO WATER GROUNDWATER ELEVATION

S-83-1151	5/5/83	3:17	From Top of PVC 113.7	779.63
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GEOLOGIC
AND GROUNDWATER

SK-3932

SHEET 1 OF 1



MONITORING WELL CONSTRUCTION INFORMATION

JOB NO. C 12228

BORING/WELL NO. S-85-1152A

DATE 9/27/85

CHIEF/UNIT LS

1. PROTECTIVE CASING YES NO

LOCKING YES NO

2. CONCRETE SEAL YES NO

3. TYPE OF SURFACE SEAL (IF INSTALLED)

4. SOLID PIPE TYPE PVC SCH 80

SOLID PIPE LENGTH 42 ft.

JOINT TYPE SLIP/GLUED THREADED

5. TYPE OF BACKFILL Cement-Bentonite

HOW INSTALLED TREMIE
FROM SURFACE

6. TYPE OF LOWER SEAL (IF INSTALLED)

Bentonite Pellets

7. SCREEN TYPE PVC SCH 80

SCREEN LENGTH 15.0

SLOT-SIZE 0.010" LENGTH 12 ft.

SCREEN DIAMETER 4.0 in.

8. TYPE OF BACKFILL AROUND SCREEN

Flint Sand

9. TYPE OF BACKFILL Sluff

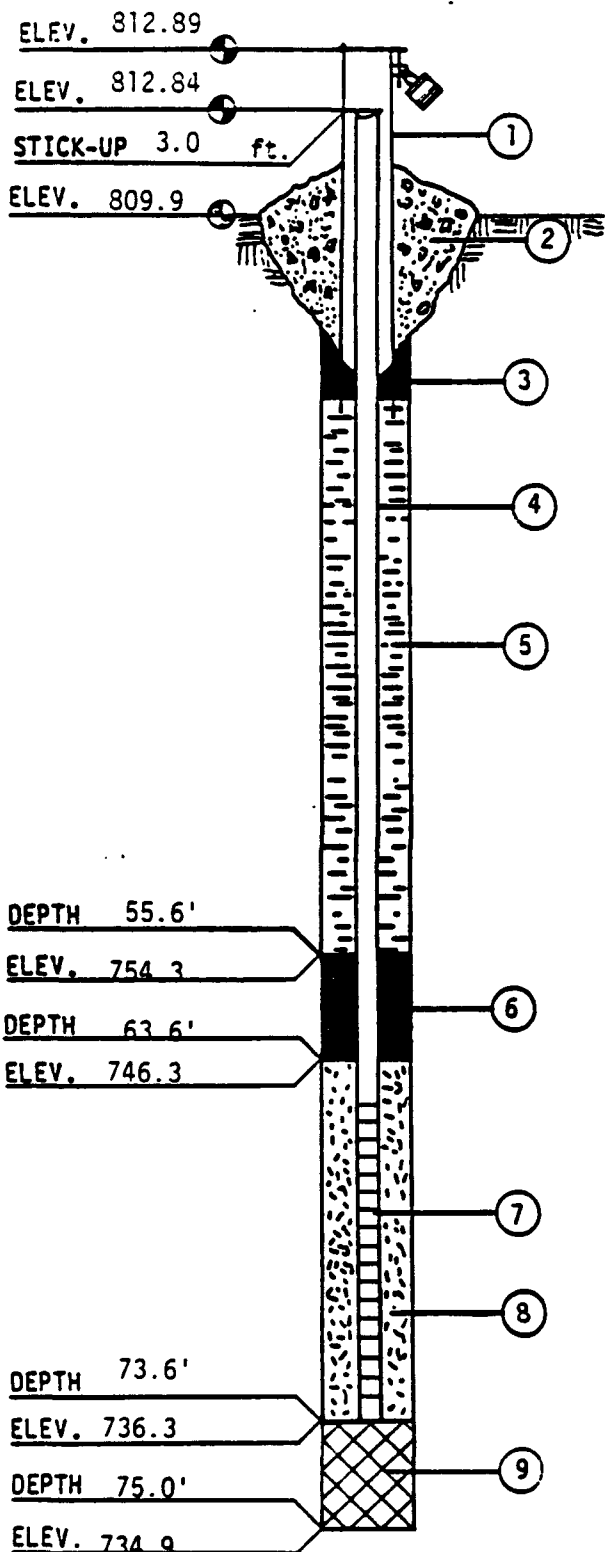
10. DRILLING METHOD Wash Boring/Roller Bit

11. ADDITIVES USED (IF ANY)

Bentonite

WATER LEVEL 8.7' DATE 9/27/85

*ALL DEPTHS MEASURED FROM GROUND SURFACE.



MONITORING WELL CONSTRUCTION INFORMATION

JOB NO. C 12228

BORING/WELL NO. S-85-11528

DATE 9/26/85

CHIEF/UNIT LS

1. PROTECTIVE CASING YES NO

LOCKING YES NO

2. CONCRETE SEAL YES NO

3. TYPE OF SURFACE SEAL (IF INSTALLED)
Granular Bentonite

4. SOLID PIPE TYPE PVC SCH 80

SOLID PIPE LENGTH 73 ft.

JOINT TYPE SLIP/GLUED THREADED

5. TYPE OF BACKFILL Cement/Bentonite Grout

HOW INSTALLED TREMBLE
FROM SURFACE

6. TYPE OF LOWER SEAL (IF INSTALLED)
Bentonite Pellets

7. SCREEN TYPE 4" SCH 80 PVC

SCREEN LENGTH 5.0'

SLOT-SIZE 0.010" LENGTH 4.0 ft.

SCREEN DIAMETER 4.0 in.

8. TYPE OF BACKFILL AROUND SCREEN
Flint Sand

9. TYPE OF BACKFILL Sluff

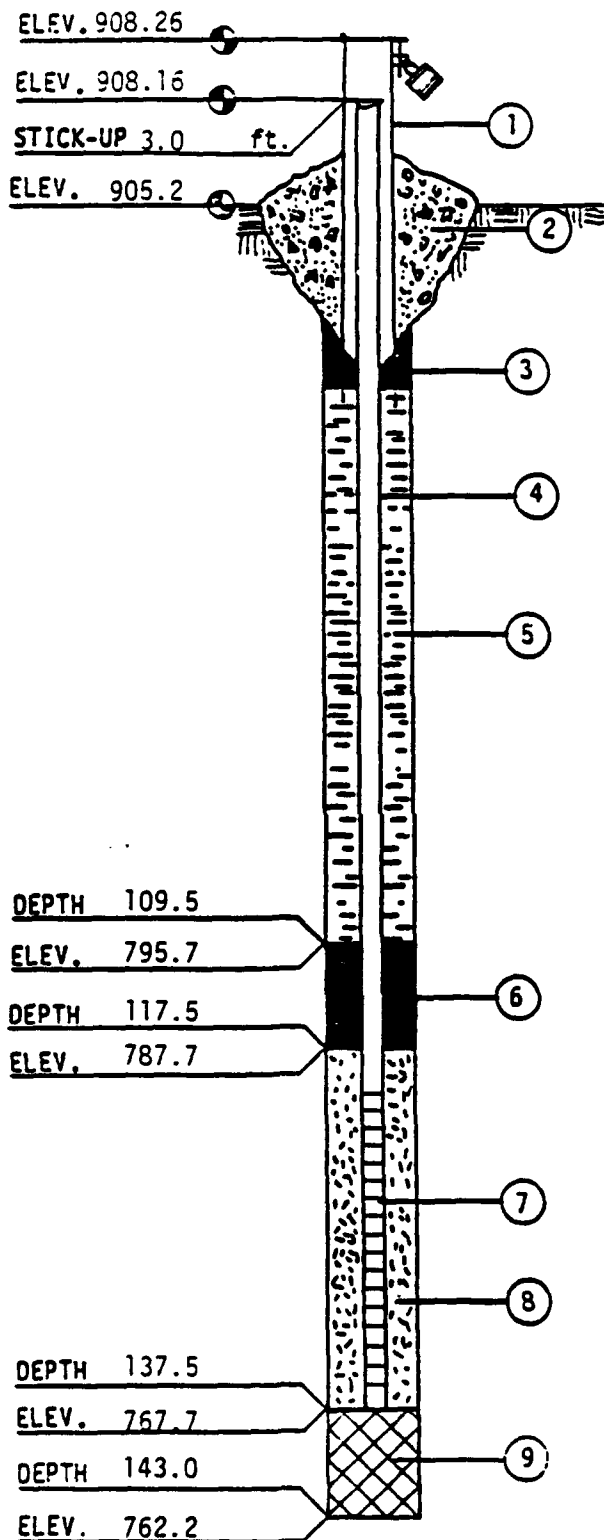
10. DRILLING METHOD Wash Boring/Roller Bit

11. ADDITIVES USED (IF ANY)

Bentonite

WATER LEVEL 32.6' DATE 9/26/85

*ALL DEPTHS MEASURED FROM GROUND SURFACE.



MONITORING WELL CONSTRUCTION INFORMATION

JOB NO. C 12228

BORING/WELL NO. S-85-1153

DATE 9/20/85

CHIEF/UNIT LS

1. PROTECTIVE CASING ☒ YES NO

LOCKING ☒ YES NO

2. CONCRETE SEAL ☒ YES NO

3. TYPE OF SURFACE SEAL (IF INSTALLED)

Cement

4. SOLID PIPE TYPE 4" SCH 80 PVC

SOLID PIPE LENGTH 125.5 ft.

JOINT TYPE SLIP/GLUED ☒ THREADED

5. TYPE OF BACKFILL Cement Grout

HOW INSTALLED ☒ TREMIE FROM SURFACE

6. TYPE OF LOWER SEAL (IF INSTALLED)

Bentonite Pellets

7. SCREEN TYPE 4" PVC

SCREEN LENGTH 15.0'

SLOT-SIZE 0.010" LENGTH 12.0 ft.

SCREEN DIAMETER 4.0 in.

8. TYPE OF BACKFILL AROUND SCREEN

Flint Sand

9. TYPE OF BACKFILL Sluff

10. DRILLING METHOD Wasn Boring/Roller Bit

11. ADDITIVES USED (IF ANY)

Bentonite Powder

WATER LEVEL 110.3' DATE 9/23/85

*ALL DEPTHS MEASURED FROM GROUND SURFACE.

Facility/Project Name BANGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name ELW-91-0713
Facility License, Permit or Monitoring Number		WIS. Unique Well Number DNR Well Number
Type of Well: Water Table Observation Well <input checked="" type="checkbox"/> Piezometer <input type="checkbox"/>	Section Location 1/4 of 1/4 of Section	Date Well Installed 11/09/91
Distance Well is From Waste/Source Boundary NA ft.	T. <input type="checkbox"/> N. <input type="checkbox"/> R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) GABRY RODRIGUEZ
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input checked="" type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation -895.29 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation -895.88 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 in. b. Length: 09.0 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation -893.9 ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: Buckingham Posts + GRAY PAD
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite . . . Bentonite-cement grout <input checked="" type="checkbox"/> 50 200 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 03
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 BENTONITE POWDER Other <input checked="" type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size NONE
Describe _____	Volume added _____ ft ³
17. Source of water (attach analysis): PRODUCTION WELL #2	8. Filter pack material: Manufacturer, product name and mesh size CSSI SILICA SANDS #4
	Volume added 20 ft ³
E. Bentonite seal, top -776.9 ft. MSL or 217.0 ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
F. Fine sand, top _____ ft. MSL or _____ ft.	10. Screen material: SCU 80 4" PVC
G. Filter pack, top -766.4 ft. MSL or 122.5 ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
H. Well screen, top -758.9 ft. MSL or 135.0 ft.	Manufacturer MONOFLEX
I. Well screen, bottom -748.9 ft. MSL or 145.0 ft.	Slot size: 0.010 in.
J. Filter pack, bottom -748.9 ft. MSL or 145.0 ft.	Sloped length: 10.0 ft. FR
K. Borehole, bottom -743.9 ft. MSL or 150.0 ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> SYNTHETIC SALT Other <input checked="" type="checkbox"/>
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 04.25 in.	
N. I.D. well casing 03.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Paul Kuntz* Firm **ABB-ES**

Facility/Project Name BADGER AAP	Grid Location ft. <input type="checkbox"/> N. <input type="checkbox"/> S. ft. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name ELM-91-10
Facility License, Permit or Monitoring Number		Well Unique Well Number
Type of Well: Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed 11/13/91 m m d d y y
Distance Well Is From Waste/Source Boundary NA ft.	T <input type="checkbox"/> N. R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and firm) G RODRIGUEZ
Is Well A Point of Enforcement Sta. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input checked="" type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	LAYNE

A. Protective pipe, top elevation 923.26 ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation 923.04 ft. MSL	2. Protective cover pipe: a. Inside diameter: 06.0 b. Length: 06.0 c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation 920.8 ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: BUCKING POSTS GRAVEL
D. Surface seal, bottom 920.8 ft. MSL or 920.8 ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 30 Lbs/gal mud weight 5 Bentonite-sand slurry <input type="checkbox"/> 30 Lbs/gal mud weight 5 Bentonite slurry <input type="checkbox"/> 30 200 % Bentonite <input type="checkbox"/> 30 200 Ft ³ volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 DUAL WALL REV AIR Other <input checked="" type="checkbox"/>	How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input type="checkbox"/> 0 Gravity <input checked="" type="checkbox"/> 03
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input checked="" type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input checked="" type="checkbox"/> 3 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size NONE Volume added 0 ft ³
Describe PRODUCTION WELL #2	8. Filter pack material: Manufacturer, product name and mesh size CSSI #4 Volume added 24 ft ³
17. Source of water (attach analysis):	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 30 <input checked="" type="checkbox"/> 2 Other <input type="checkbox"/>
E. Bentonite seal, top 793.8 ft. MSL or 793.8 ft.	10. Screen material: 4" SCH 80 PVC Screen type: Factory cut <input checked="" type="checkbox"/> 1 Continuous slot <input type="checkbox"/> 0 Other <input type="checkbox"/>
F. Fine sand, top 793.8 ft. MSL or 793.8 ft.	Manufacturer MONOFLEX Slot size: 0.010 Slotted length: 10.0
G. Filter pack, top 793.8 ft. MSL or 793.8 ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top 791.8 ft. MSL or 791.8 ft.	
I. Well screen, bottom 766.8 ft. MSL or 766.8 ft.	
J. Filter pack, bottom 766.8 ft. MSL or 766.8 ft.	
K. Borehole, bottom 766.8 ft. MSL or 766.8 ft.	
L. Borehole, diameter 09.0 in.	
M. O.D. well casing 04.50 in.	
N. I.D. well casing 03.75 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Paul R. Rauter**Firm **APB - ES**

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4,805,783.8</u> <u>279,844.9</u>	Well Name <u>ELM-89-01</u>
Facility License, Permit or Monitoring Number	<u>279,844.9</u>	Wis. Unique Well Number <u>ELM-89-01</u> DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>01/18/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N. R. <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>John Swanson / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>922.88</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>922.23</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>920.5</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input checked="" type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input checked="" type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight . . . Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite . . . Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 390 gal</u> volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Drill Well</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
Describe <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat, Silica Filter Sand</u> Volume added <u>≈ 3.8</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
E. Bentonite seal, top <u>125.1</u> ft. MSL or <u>125.4</u> ft.	10. Screen material: <u>Schedule 80 RX</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slotted length: <u>20.0</u> ft.
G. Filter pack, top <u>129.9</u> ft. MSL or <u>130.6</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> Other <input type="checkbox"/>
H. Well screen, top <u>125.0</u> ft. MSL or <u>145.5</u> ft.	
I. Well screen, bottom <u>125.5</u> ft. MSL or <u>165.0</u> ft.	
J. Filter pack, bottom <u>125.5</u> ft. MSL or <u>165.0</u> ft.	
K. Borehole, bottom <u>125.1</u> ft. MSL or <u>165.4</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>9.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P. J. B. L. Firm E.C. Jordan Co.

Please complete and return to DNR. Violations of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4,865,748.3</u> <u>279,992.0</u>	Well Name <u>ELN-89-02A</u>
Facility License, Permit or Monitoring Number		Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/22/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dore H. Belan / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

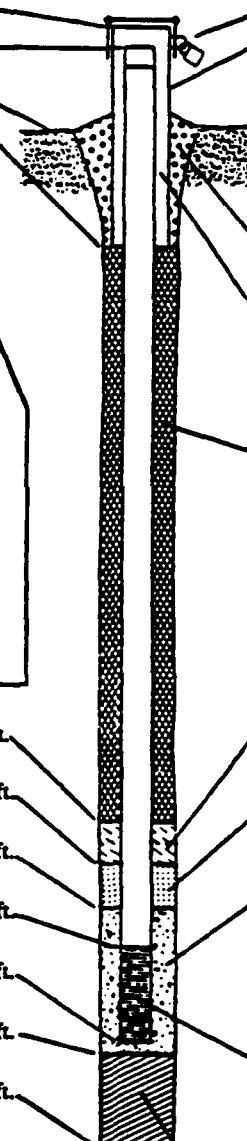
A. Protective pipe, top elevation <u>921.85</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>921.10</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>919.4</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/> <u>Grout</u>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>± 350</u> gal per volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Dual Well</u>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Filter Sand</u> Volume added <u>± 30</u> ft ³
Describe <u>DW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>DW #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>921.4</u> ft. MSL or <u>128.0</u> ft.	Manufacturer <u>Linco</u> Slot size: <u>0.010</u> in. Slot length: <u>20.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> <u>Natural Sand</u> Other <input type="checkbox"/>
G. Filter pack, top <u>926.4</u> ft. MSL or <u>133.0</u> ft.	
H. Well screen, top <u>980.4</u> ft. MSL or <u>139.0</u> ft.	
I. Well screen, bottom <u>960.4</u> ft. MSL or <u>159.0</u> ft.	
J. Filter pack, bottom <u>960.4</u> ft. MSL or <u>159.0</u> ft.	
K. Borehole, bottom <u>959.4</u> ft. MSL or <u>160.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature P. H. Belan Firm E. C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Budget Air Conditioning Plant</u>		Grid Location <u>4,805,747.6</u> <u>250,007.9</u> <u>N</u> <input checked="" type="checkbox"/> <u>E</u> <input type="checkbox"/> <u>S</u> <input type="checkbox"/> <u>W</u>		Well Name <u>ELN-89-02B</u>	
Facility License, Permit or Monitoring Number				Wis. Unique Well Number <u> </u> DNR Well Number <u> </u>	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12		Section Location 1/4 of <u> </u> 1/4 of Section <u> </u>		Date Well Installed <u>09/18/89</u> m m d d y y	
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.		T <u> </u> N <u> </u> R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) <u>Jim Buss / E.C. Jordan Co.</u>	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known			

<p>A. Protective pipe, top elevation <u>921.36</u> ft. MSL</p> <p>B. Well casing, top elevation <u>920.19</u> ft. MSL</p> <p>C. Land surface elevation <u>918.0</u> ft. MSL</p> <p>D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input checked="" type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock</p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Dual Wall</u> Other <input checked="" type="checkbox"/> <u> </u></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe <u> </u></p> <p>17. Source of water (attach analysis): <u>PW #2</u></p> </div> <p>E. Bentonite seal, top <u>262.0</u> ft. MSL or <u>156.0</u> ft.</p> <p>F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.</p> <p>G. Filter pack, top <u>252.0</u> ft. MSL or <u>166.0</u> ft.</p> <p>H. Well screen, top <u>244.5</u> ft. MSL or <u>173.5</u> ft.</p> <p>I. Well screen, bottom <u>239.5</u> ft. MSL or <u>172.5</u> ft.</p> <p>J. Filter pack, bottom <u>239.5</u> ft. MSL or <u>172.5</u> ft.</p> <p>K. Borehole, bottom <u>237.0</u> ft. MSL or <u>181.0</u> ft.</p> <p>L. Borehole, diameter <u>9.5</u> in.</p> <p>M. O.D. well casing <u>4.5</u> in.</p> <p>N. I.D. well casing <u>4.0</u> in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>7.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> <u> </u> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u></p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 <u>Grout</u> Other <input checked="" type="checkbox"/> <u> </u></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u> </u> <u>Grout</u> Other <input checked="" type="checkbox"/> <u> </u></p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 <u> </u> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 <u> </u> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>430 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite slurry</u> Other <input checked="" type="checkbox"/> <u> </u></p> <p>7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft³</p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat, Silver Filter Sand</u> Volume added <u>2.64</u> ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> <u> </u></p> <p>10. Screen material: <u>schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> <u> </u></p> <p>11. Backfill material (below filter pack): <u>Native Fill</u> None <input type="checkbox"/> <u> </u> Other <input checked="" type="checkbox"/> <u> </u></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bader Iron Processing Plant</u>	Grid Location <u>4,805, 777.0</u>	Well Name <u>ELM-89-03</u>
Facility License, Permit or Monitoring Number <u>280,214.9</u>	<u>7</u> ft. <input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <u>7</u> ft. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>01/25/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T. N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <u>Scott Wibby / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>-916.45</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>-916.28</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>.6</u> in b. Length: <u>2.0</u> ft c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>-914.0</u> ft. MSL	d. Additional protection? If yes, describe: <u>4 bucking bolts</u>
D. Surface seal, bottom ft. MSL or ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 = <u>475</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Dual Well</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u>
Describe <u>pw #2</u>	Volume added <u>NA</u> ft ³
17. Source of water (attach analysis): <u>pw #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat, Silver Filter Sand</u>
E. Bentonite seal, top <u>-804.0</u> ft. MSL or <u>110.6</u> ft.	Volume added <u>3.2</u> ft ³
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
G. Filter pack, top <u>-793.0</u> ft. MSL or <u>121.0</u> ft.	10. Screen material: <u>Schedule 80 PVC</u>
H. Well screen, top <u>-784.0</u> ft. MSL or <u>130.0</u> ft.	Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
I. Well screen, bottom <u>-764.0</u> ft. MSL or <u>150.0</u> ft.	Manufacturer <u>Times</u>
J. Filter pack, bottom <u>-764.0</u> ft. MSL or <u>150.0</u> ft.	Slot size: <u>0.04</u> in. Slotted length: <u>80.0</u> ft.
K. Borehole, bottom <u>-734.0</u> ft. MSL or <u>180.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native Soil</u> <input checked="" type="checkbox"/>
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4,805,979.2</u> <u>280,159.8</u>	Well Name <u>ELM-89-04A</u>
Facility License, Permit or Monitoring Number	<u>280,159.8</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>03/30/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N, R <u>NA</u> E <u>NA</u> W	Well Installed By: (Person's Name and Firm) <u>Rick Allen / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>926.43</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>926.28</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>924.1</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> <u>Grout</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>600 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat, Slits Filter Sand</u> Volume added <u>2.8</u> ft ³
Describe <u>PW #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW #2</u>	10. Screen material: <u>schedule 80 POC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>788.1</u> ft. MSL or <u>136.0</u> ft.	Manufacturer <u>Tipeco</u> Slot size: <u>0.210</u> in. Slotted length: <u>20.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Red Flat Filter Sand</u> Other <input checked="" type="checkbox"/>
G. Filter pack, top <u>783.1</u> ft. MSL or <u>141.0</u> ft.	
H. Well screen, top <u>782.1</u> ft. MSL or <u>142.0</u> ft.	
I. Well screen, bottom <u>762.1</u> ft. MSL or <u>162.0</u> ft.	
J. Filter pack, bottom <u>758.1</u> ft. MSL or <u>166.0</u> ft.	
K. Borehole, bottom <u>756.1</u> ft. MSL or <u>168.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Boulder Dam Remediation Plant</u>		Grid Location <u>4805, 952.7</u> <u>280, 172.7</u>		Well Name <u>ELN-89-04B</u>	
Facility License, Permit or Monitoring Number				Wis. Unique Well Number DNR Well Number	
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section		Date Well Installed <u>04/02/89</u>		
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N. R. <input type="checkbox"/> E. <input type="checkbox"/> W		Well Installed By: (Person's Name and Firm) <u>Deer Belau / E.C. Jordan Co.</u>		
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known				

A. Protective pipe, top elevation <u>926.80</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>926.63</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>924.8</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 5 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 30 + 485 gal volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Drill Well</u>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>214</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silver Filter Sand</u> Volume added <u>1.3</u> ft ³
Describe <u>Red Flint</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>Red Flint</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>942.8</u> ft. MSL or <u>962.0</u> ft.	Manufacturer <u>Tremie</u> Slot size: <u>0.012</u> in. Slotted length: <u>5.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> Other <input type="checkbox"/>
G. Filter pack, top <u>939.8</u> ft. MSL or <u>982.0</u> ft.	
H. Well screen, top <u>930.8</u> ft. MSL or <u>994.0</u> ft.	
I. Well screen, bottom <u>925.8</u> ft. MSL or <u>992.0</u> ft.	
J. Filter pack, bottom <u>925.8</u> ft. MSL or <u>992.0</u> ft.	
K. Borehole, bottom <u>925.8</u> ft. MSL or <u>992.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>9.5</u> in.	
N. I.D. well casing <u>9.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Bridge Army Ammunition Plant</u>	Grid Location <u>4, 606, 115.1</u>	Well Name <u>ELM-89-05</u>
Facility License, Permit or Monitoring Number	<u>250,061.1</u>	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>02/01/89</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <input type="checkbox"/> N, R <input type="checkbox"/> E, W <input type="checkbox"/>	Well Installed By: (Person's Name and Firm) <u>Fred Bagdon / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>901.06</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>900.95</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.5</u> in. b. Length: <u>2.0</u> ft. c. Material: <input checked="" type="checkbox"/> Steel <input type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>898.2</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: <u>Grout</u> Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input checked="" type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: <u>Grout</u> Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± <u>20</u> gal volume added for any of the above
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 Other <input checked="" type="checkbox"/> <u>Dual Well</u>	How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u>
Describe <u>PW #2</u>	Volume added <u>NA</u> ft ³
17. Source of water (attach analysis): <u>PW #2</u>	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Fish, Silice Filter Sand</u> Volume added <u>3.0</u> ft ³
E. Bentonite seal, top <u>795.2</u> ft. MSL or <u>103.0</u> ft.	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
G. Filter pack, top <u>790.2</u> ft. MSL or <u>108.0</u> ft.	Manufacturer <u>Times</u> Slot size: <u>0.010</u> in. Slotted length: <u>20</u> ft.
H. Well screen, top <u>785.2</u> ft. MSL or <u>113.0</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Gravel Core + Filter Pack</u> Other <input checked="" type="checkbox"/>
I. Well screen, bottom <u>765.2</u> ft. MSL or <u>133.0</u> ft.	
J. Filter pack, bottom <u>763.2</u> ft. MSL or <u>135.0</u> ft.	
K. Borehole, bottom <u>758.2</u> ft. MSL or <u>140.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.
Signature [Signature] Firm E.C. Jordan Co.

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4,805,864.6</u> <u>260,212.4</u>	Well Name <u>ELN-89-06R</u>
Facility License, Permit or Monitoring Number	<u>NA</u>	WIS. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input type="checkbox"/> 11 Piezometer <input checked="" type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>04/04/89</u> m m d d y y
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <u>NA</u> N. R. <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Dave Beck / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>908.22</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>908.22</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>906.1</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking posts</u>
D. Surface seal, bottom <u>NA</u> ft. MSL or <u>NA</u> ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/> <u>Grout</u>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input checked="" type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>Grout</u>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>~ 440 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well</u> Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Bentonite Slurry</u> Other <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flint, Silica Filter Sand</u> Volume added <u>~ 1.3</u> ft ³
Describe <u>PD #2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PD #2</u>	10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>241.1</u> ft. MSL or <u>165.0</u> ft.	Manufacturer <u>Lisco</u> Slot size: <u>0.010</u> in. Slotted length: <u>5.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> <u>Drill Cuttings</u> Other <input type="checkbox"/>
G. Filter pack, top <u>236.1</u> ft. MSL or <u>170.0</u> ft.	
H. Well screen, top <u>229.1</u> ft. MSL or <u>177.0</u> ft.	
I. Well screen, bottom <u>224.1</u> ft. MSL or <u>182.0</u> ft.	
J. Filter pack, bottom <u>224.1</u> ft. MSL or <u>182.0</u> ft.	
K. Borehole, bottom <u>206.1</u> ft. MSL or <u>202.0</u> ft.	
L. Borehole, diameter <u>2.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Paul P. Beck Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Grid Location <u>4,85,582.2</u>	Well Name <u>ELM-89-07</u>
Facility License, Permit or Monitoring Number <u>260,112.7</u>	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>0 9 / 1 8 / 8 9</u>
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.	T <input type="checkbox"/> N, R <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: (Person's Name and Firm) <u>Jim Buss / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

A. Protective pipe, top elevation <u>-916.25</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>-916.19</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>-913.2</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 backing posts</u>
D. Surface seal, bottom <u>ft.</u> MSL or <u>ft.</u>	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input checked="" type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 Lbs/gal mud weight... Bentonite-sand slurry <input type="checkbox"/> 35 Lbs/gal mud weight... Bentonite slurry <input type="checkbox"/> 31 5 % Bentonite... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± 290 gal-ft ³ volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input type="checkbox"/> 41 <u>Drill Well</u> Other <input checked="" type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input checked="" type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat, Silver Filter Sand</u> Volume added <u>3.7</u> ft ³
Describe <u>FW#2</u>	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>FW#2</u>	10. Screen material: <u>schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>-801.7</u> ft. MSL or <u>112.0</u> ft.	Manufacturer <u>Tremco</u> Slot size: <u>0.219</u> in. Slotted length: <u>20.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input type="checkbox"/> <u>Native Sand</u> Other <input checked="" type="checkbox"/>
G. Filter pack, top <u>-296.7</u> ft. MSL or <u>112.0</u> ft.	
H. Well screen, top <u>-783.4</u> ft. MSL or <u>130.3</u> ft.	
I. Well screen, bottom <u>-763.4</u> ft. MSL or <u>150.3</u> ft.	
J. Filter pack, bottom <u>-763.4</u> ft. MSL or <u>150.3</u> ft.	
K. Borehole, bottom <u>-743.4</u> ft. MSL or <u>120.3</u> ft.	
L. Borehole, diameter <u>2.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

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Facility/Project Name <u>Bader Home Improvement Plant</u>	Grid Location <u>4,805,593.1</u>	Well Name <u>FLM-89-08</u>
Facility License, Permit or Monitoring Number <u>399,992.7</u>	<input checked="" type="checkbox"/> N. <input type="checkbox"/> S. <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.	Wis. Unique Well Number DNR Well Number
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12	Section Location 1/4 of 1/4 of Section	Date Well Installed <u>04/04/89</u>
Distance Well Is From Waste/Source Boundary <u>12A</u> ft.	T. N. R. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Installed By: (Person's Name and Firm) <u>Rich Allen / E.C. Jordan Co.</u>
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known	

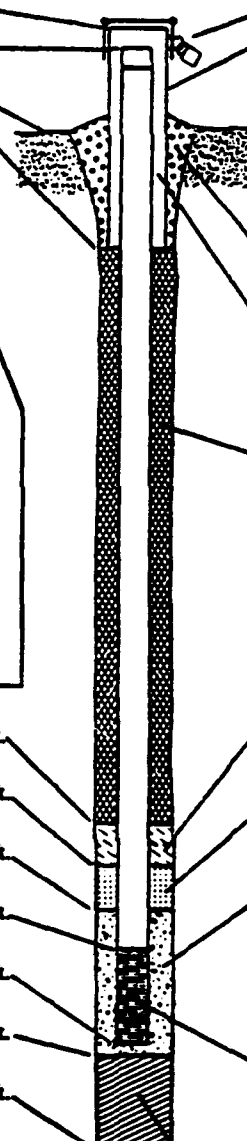
A. Protective pipe, top elevation <u>906.21</u> ft. MSL	1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
B. Well casing, top elevation <u>906.04</u> ft. MSL	2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation <u>903.0</u> ft. MSL	d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking Posts</u>
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 0 Other <input checked="" type="checkbox"/>
12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock	4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> Other <input checked="" type="checkbox"/>
13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: Granular Bentonite <input checked="" type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 3 Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 3 % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 ± <u>1200</u> gal. volume added for any of the above How installed: Tremie <input type="checkbox"/> 0 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 09
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: Bentonite granules <input type="checkbox"/> 3 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 <u>Other</u> <input checked="" type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat Silver Filter Sand</u> Volume added <u>3.0</u> ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis): <u>PW#2</u>	10. Screen material: <u>Schedule 80 pipe</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top <u>800.0</u> ft. MSL or <u>103.0</u> ft.	Manufacturer <u>Tisco</u> Slot size: <u>0.01</u> in. Slotted length: <u>20.0</u> ft.
F. Fine sand, top <u>NA</u> ft. MSL or <u>NA</u> ft.	11. Backfill material (below filter pack): None <input checked="" type="checkbox"/> <u>Native Sand</u> <input type="checkbox"/>
G. Filter pack, top <u>985.0</u> ft. MSL or <u>115.0</u> ft.	
H. Well screen, top <u>998.0</u> ft. MSL or <u>125.0</u> ft.	
I. Well screen, bottom <u>958.0</u> ft. MSL or <u>145.0</u> ft.	
J. Filter pack, bottom <u>958.0</u> ft. MSL or <u>145.0</u> ft.	
K. Borehole, bottom <u>954.0</u> ft. MSL or <u>149.0</u> ft.	
L. Borehole, diameter <u>9.5</u> in.	
M. O.D. well casing <u>4.5</u> in.	
N. I.D. well casing <u>4.0</u> in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Pat J. Blum Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

Facility/Project Name <u>Budget Army Ammunition Plant</u>		Grid Location <u>4,805,843.9</u> <u>7</u> <input checked="" type="checkbox"/> N. <input type="checkbox"/> S.		Well Name <u>ELM-89-09</u>	
Facility License, Permit or Monitoring Number <u>279,744.6</u>		<u>279,744.6</u> <u>7</u> <input checked="" type="checkbox"/> E. <input type="checkbox"/> W.		Wis. Unique Well Number <u> </u> DNR Well Number <u> </u>	
Type of Well Water Table Observation Well <input checked="" type="checkbox"/> 11 Piezometer <input type="checkbox"/> 12		Section Location 1/4 of <u> </u> 1/4 of Section <u> </u> T <u> </u> N, R <u> </u> <input type="checkbox"/> E <input type="checkbox"/> W		Date Well Installed <u>04/13/89</u> m m d d y y	
Distance Well Is From Waste/Source Boundary <u>NA</u> ft.		Location of Well Relative to Waste/Source <input type="checkbox"/> Upgradient <input type="checkbox"/> Sidegradient <input type="checkbox"/> Downgradient <input type="checkbox"/> Not Known		Well Installed By: (Person's Name and Firm) <u>Bill Metzger / F.C. Jordan Co.</u>	
Is Well A Point of Enforcement Std. Application? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

<p>A. Protective pipe, top elevation <u>222.82</u> ft. MSL</p> <p>B. Well casing, top elevation <u>221.29</u> ft. MSL</p> <p>C. Land surface elevation <u>219.6</u> ft. MSL</p> <p>D. Surface seal, bottom <u> </u> ft. MSL or <u> </u> ft.</p> <div style="border: 1px solid black; padding: 5px; margin: 5px 0;"> <p>12. USCS classification of soil near screen: <input type="checkbox"/> GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input checked="" type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock</p> <p>13. Sieve analysis attached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/> <u> </u></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe <u> </u></p> <p>17. Source of water (attach analysis): <u>PW #2</u></p> </div> <p>E. Bentonite seal, top <u>294.6</u> ft. MSL or <u>125.0</u> ft.</p> <p>F. Fine sand, top <u> </u> ft. MSL or <u>NA</u> ft.</p> <p>G. Filter pack, top <u>289.6</u> ft. MSL or <u>130.0</u> ft.</p> <p>H. Well screen, top <u>284.6</u> ft. MSL or <u>135.0</u> ft.</p> <p>I. Well screen, bottom <u>264.6</u> ft. MSL or <u>155.0</u> ft.</p> <p>J. Filter pack, bottom <u>262.6</u> ft. MSL or <u>152.0</u> ft.</p> <p>K. Borehole, bottom <u>251.6</u> ft. MSL or <u>160.0</u> ft.</p> <p>L. Borehole, diameter <u>2.5</u> in.</p> <p>M. O.D. well casing <u>4.5</u> in.</p> <p>N. I.D. well casing <u>4.0</u> in.</p>	 <p>1. Cap and lock? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: <u>6.0</u> in. b. Length: <u>2.0</u> ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/> <u> </u> d. Additional protection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, describe: <u>4 bucking Posts</u></p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input checked="" type="checkbox"/> <u>Grout</u></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Annular space seal <input type="checkbox"/> <u>Grout</u> Other <input checked="" type="checkbox"/> <u> </u></p> <p>5. Annular space seal: Granular Bentonite <input type="checkbox"/> 33 <u> </u> Lbs/gal mud weight ... Bentonite-sand slurry <input type="checkbox"/> 35 <u> </u> Lbs/gal mud weight ... Bentonite slurry <input type="checkbox"/> 31 <u>5</u> % Bentonite ... Bentonite-cement grout <input checked="" type="checkbox"/> 50 <u>240 gal</u> volume added for any of the above How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input checked="" type="checkbox"/> 02 Gravity <input type="checkbox"/> 08</p> <p>6. Bentonite seal: Bentonite granules <input type="checkbox"/> 33 <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite pellets <input type="checkbox"/> 32 Other <input type="checkbox"/> <u> </u></p> <p>7. Fine sand material: Manufacturer, product name and mesh size <u>NA</u> Volume added <u>NA</u> ft³</p> <p>8. Filter pack material: Manufacturer, product name and mesh size <u>Red Flat Silver Filter Sand</u> Volume added <u>3.0</u> ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input type="checkbox"/> 23 Flush threaded PVC schedule 80 <input checked="" type="checkbox"/> 24 Other <input type="checkbox"/> <u> </u></p> <p>10. Screen material: <u>Schedule 80 PVC</u> Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/> <u> </u></p> <p>11. Backfill material (below filter pack): <u>Native Sand</u> None <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u> </u></p>
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I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature [Signature] Firm E.C. Jordan Co.

Please complete and return both sides of this form as required by chs. 144, 147 and 160, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with ch. 144, Wis. Stats., failure to file this form may result in a forfeiture of not less than \$10, nor more than \$5,000 for each day of violation. In accordance with ch. 147, Wis. Stats., failure to file this form may result in a forfeiture of not more than \$10,000 for each day of violation.

WELL DETAIL INFORMATION SHEET

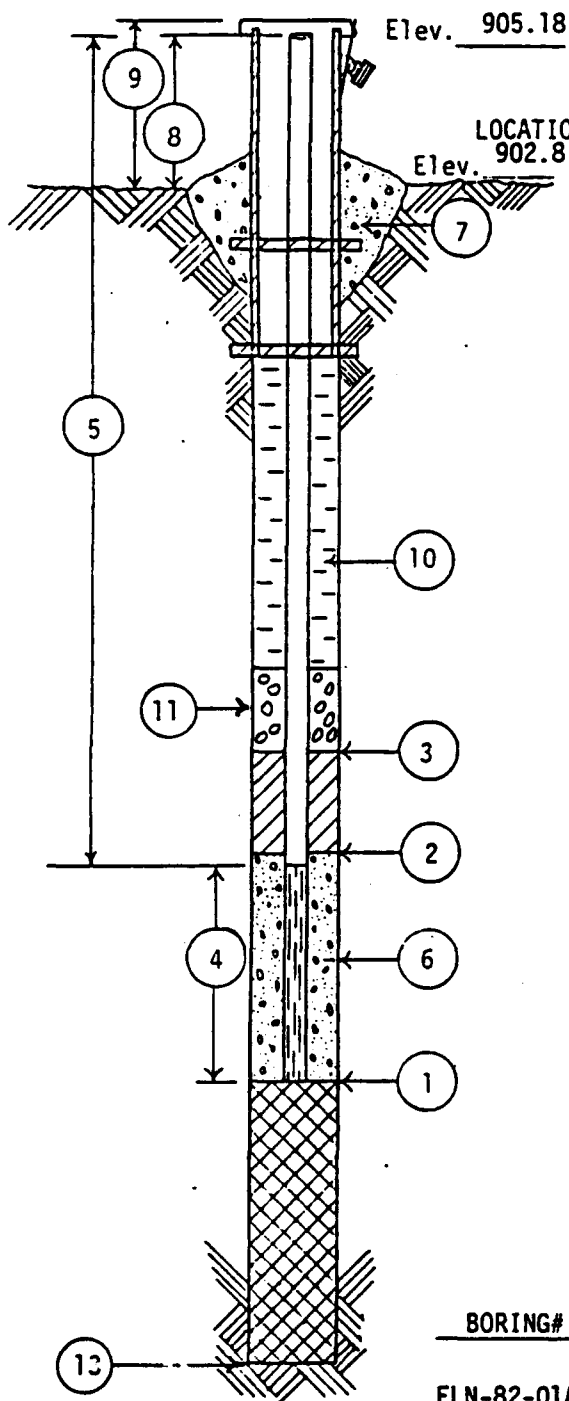
JOB NO. C 10313

BORING NO. ELN-82-01A

DATE 3/30/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Existing Landfill



All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 132 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 112 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 92 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 10 FEET.
- 5 TOTAL LENGTH OF PIPE 124.5 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, ☒ YES ☐ NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? ☒ YES ☐ NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? ☒ YES ☐ NO (Circle One)
- 10 TYPE OF BACKFILL: Cement:Bentonite 5:1
- 11 THICKNESS OF GRAVEL PACK 20 FEET.
- 12 DEPTH TO FIRST COUPLING 5 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 132 FEET.

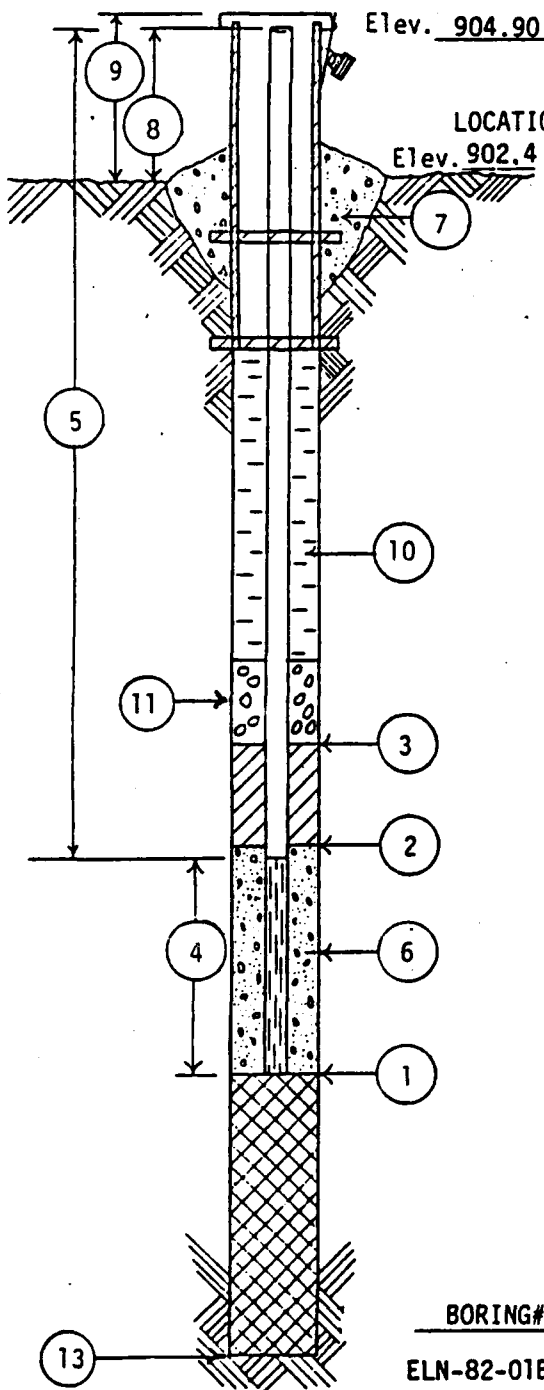
BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-01A	5/11/82	-	125.16'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313
BORING NO. ELN-82-01B
DATE 3/31/82
CHIEF Tom O.

LOCATION: Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 143.5 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 126 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 106 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 2.0 FEET.
- 5 TOTAL LENGTH OF PIPE 144 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 6:2 Cement:Bentonite
- 11 THICKNESS OF GRAVEL PACK 17.5 FEET.
- 12 DEPTH TO FIRST COUPLING 5.15 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 143.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-01B	5/11/82	-	124.84'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

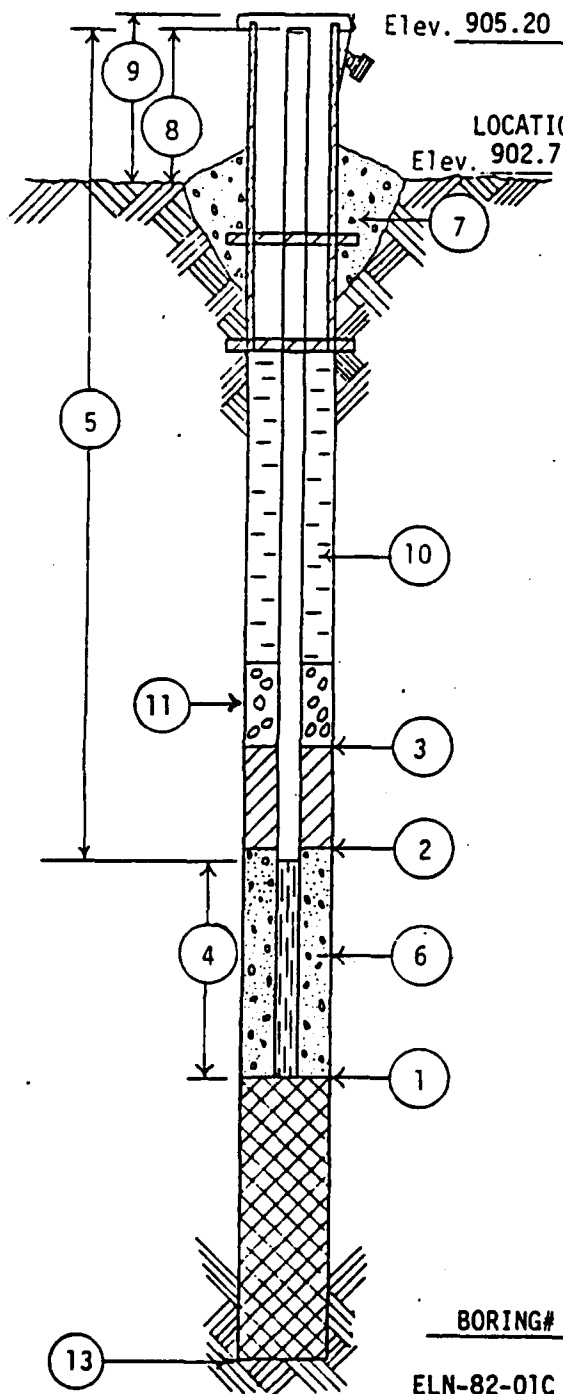
BORING NO. ELN-82-01C

DATE 3/29/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 153.5 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 140 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 120 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 2.0 FEET.
- 5 TOTAL LENGTH OF PIPE 154 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 5:2 Cement:Bentonite
- 11 THICKNESS OF GRAVEL PACK 13.5 FEET.
- 12 DEPTH TO FIRST COUPLING 5.35 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 153.5 FEET.

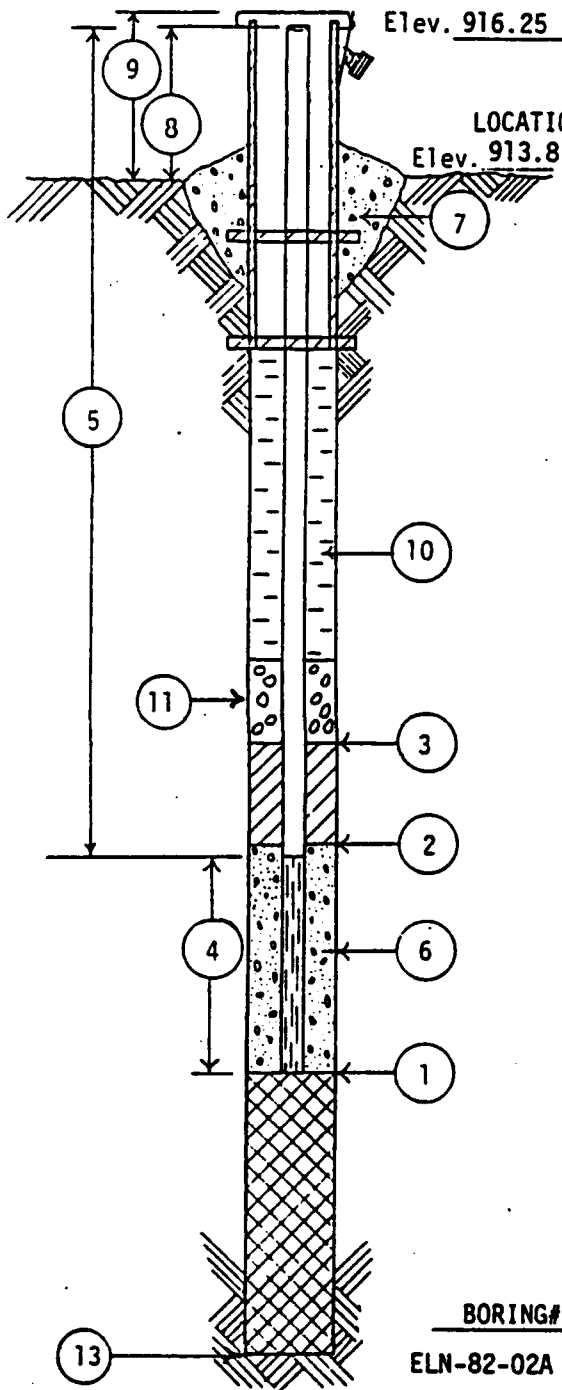
BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-01C	5/11/82	-	125.46'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313
 BORING NO. ELN-82-02A
 DATE 4/1/82
 CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR SLOTTED PIPE 142 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed) 122 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed) 102 FEET.
- 4 LENGTH OF PVC WELL SCREEN, 10 FEET.
- 5 TOTAL LENGTH OF PIPE 134.5 FEET @ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND 2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
 HEIGHT ABOVE GROUND 2.5
 LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 6:2 Cement:Bentonite
- 11 THICKNESS OF GRAVEL PACK 20 FEET.
- 12 DEPTH TO FIRST COUPLING 5.55 FEET.,
 COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 142 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-02A	5/11/82	-	136.72'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

BORING NO. ELN-82-02B

DATE 4/1/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.

- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 151.5 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
136 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
116 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
2 FEET.
- 5 TOTAL LENGTH OF PIPE 152 FEET
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5.
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 6:2 Cement:Bentonite
- 11 THICKNESS OF GRAVEL PACK 15.5 FEET.
- 12 DEPTH TO FIRST COUPLING 5.2 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 151.5 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-02B	5/11/82	-	137.35'	From top of casing

WELL DETAIL INFORMATION SHEET

JOB NO. C 10313

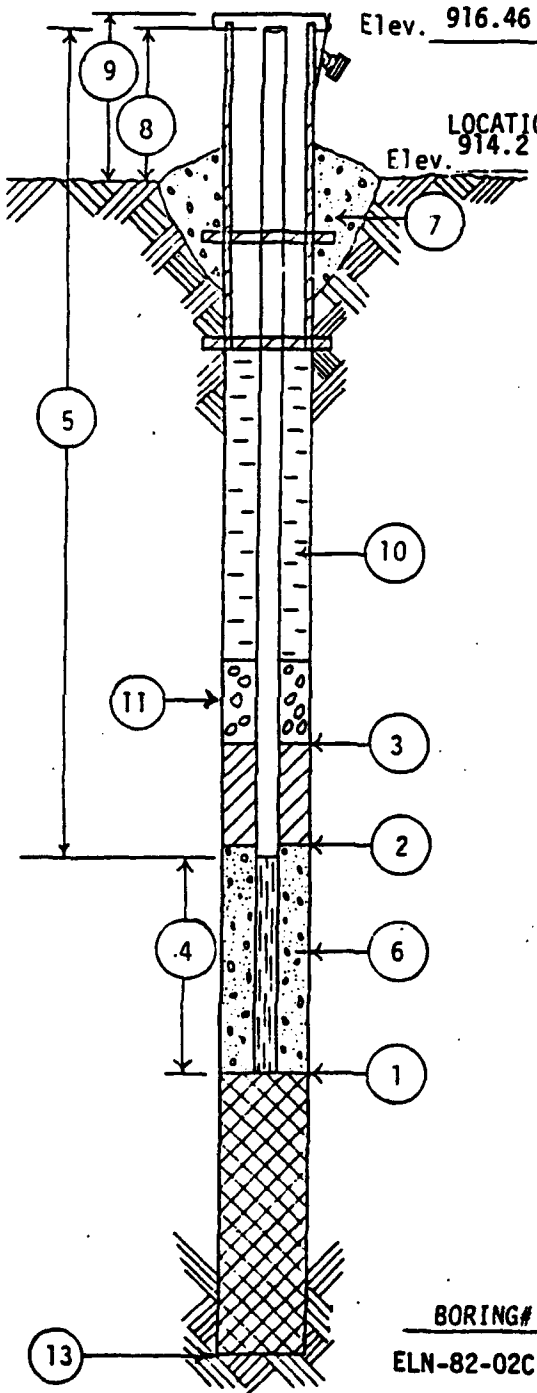
BORING NO. ELN-82-02C

DATE 4/2/82

CHIEF Tom O.

LOCATION Badger Army Ammunition Plant; Existing Landfill

All depth measurements of well detail assumed to be from ground surface unless otherwise indicated.



- 1 DEPTH TO BOTTOM OF WELL POINT OR
SLOTTED PIPE 162.75 FEET.
- 2 DEPTH OF BOTTOM OF SEAL (if installed)
152 FEET.
- 3 DEPTH TO TOP OF SEAL (if installed)
132 FEET.
- 4 LENGTH OF PVC WELL SCREEN,
2 FEET.
- 5 TOTAL LENGTH OF PIPE 163.25 FEET.
@ 4 IN. DIAMETER.
- 6 TYPE OF FILTER MATERIAL AROUND WELL
POINT OR SLOTTED PIPE Pea Gravel.
- 7 CONCRETE CAP, YES NO (Circle One)
- 8 HEIGHT OF WELL CASING ABOVE GROUND
2.5 FEET.
- 9 PROTECTIVE CASING? YES NO (Circle One)
HEIGHT ABOVE GROUND 2.5
LOCKING CAP? YES NO (Circle One)
- 10 TYPE OF BACKFILL: 6:2 Cement:Bentonite
- 11 THICKNESS OF GRAVEL PACK 10.75 FEET.
- 12 DEPTH TO FIRST COUPLING 4.75 FEET.
COUPLING INTERVAL 9.75 FEET.
- 13 TOTAL DEPTH OF BOREHOLE 162.75 FEET.

BORING#	DATE	TIME	DEPTH TO WATER	REMARKS
ELN-82-02C	5/11/82	-	136.94'	From top of casing

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Appendix D.4
Well Development Records

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Agency/Project Name BADGER ARMY AMMUNITION PLANT		Well Name PBM-89-09	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other <input type="checkbox"/> _____ 3. Time spent developing well <u>1 05</u> min. 4. Depth of well (from top of well casing) <u>1 25</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>33</u> gal. <u>40</u> gal. 7. Volume of water removed from well <u>415</u> gal. 8. Volume of water added (if any) <u>50</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>107.70</u> ft.</td> <td><u>107.59</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/18/89</u> m m d d y y</td> <td><u>03/19/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CLOUDY FOR FIRST VOLUME THEN CLEAR</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> </tr> </table> Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l 15. COD _____ mg/l		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>107.70</u> ft.	<u>107.59</u> ft.	Date	<u>03/18/89</u> m m d d y y	<u>03/19/89</u> m m d d y y	Time	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CLOUDY FOR FIRST VOLUME THEN CLEAR</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
	Before Development	After Development																	
11. Depth to Water (from top of well casing)	<u>107.70</u> ft.	<u>107.59</u> ft.																	
Date	<u>03/18/89</u> m m d d y y	<u>03/19/89</u> m m d d y y																	
Time	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.																	
12. Sediment in well bottom	_____ inches	_____ inches																	
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CLOUDY FOR FIRST VOLUME THEN CLEAR</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)																	

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DAINMORE</u> Firm: <u>C. E. ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C. E. ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name DBN-71-01A	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well _____ 75 min. 4. Depth of well (from top of well casing) 126 ft. 5. Inside diameter of well 4.0 in. 6. Volume of water in filter pack and well casing 33 gal. 7. Volume of water removed from well 160 gal. 8. Volume of water added (if any) 0 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>115.38 ft.</td> <td>115.48 ft.</td> </tr> <tr> <td>Date</td> <td>03/17/89 m m d d y y</td> <td>03/17/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>14:45 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>15:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) WATER CLOUDY AFTER 2 ND VOLUME </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> </tr> </table> Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l 15. COD _____ mg/l		Before Development	After Development	11. Depth to Water (from top of well casing)	115.38 ft.	115.48 ft.	Date	03/17/89 m m d d y y	03/17/89 m m d d y y	Time	14:45 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	15:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) WATER CLOUDY AFTER 2 ND VOLUME	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
	Before Development	After Development																	
11. Depth to Water (from top of well casing)	115.38 ft.	115.48 ft.																	
Date	03/17/89 m m d d y y	03/17/89 m m d d y y																	
Time	14:45 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	15:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.																	
12. Sediment in well bottom	_____ inches	_____ inches																	
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) WATER CLOUDY AFTER 2 ND VOLUME	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)																	

Additional comments on development:

Well developed by: Person's Name and Firm Name: R. DAVID DINDMORE Firm: CE ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: [Signature] Firm: CE ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name PSN-89-10B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td>surged with bailer and bailed</td> <td><input type="checkbox"/> 4 1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/> 6 1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/> 4 2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/> 6 2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/> 7 0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/> 2 0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/> 1 0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/> 5 1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/> 5 0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/> </td> </tr> </table> <p>3. Time spent developing well <u>100</u> min.</p> <p>4. Depth of well (from top of well casing) <u>168</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>45</u> gal.</p> <p>7. Volume of water removed from well <u>325</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> 	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>117.70</u> ft.</td> <td><u>117.57</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/18/89</u> m m d d y y</td> <td><u>03/19/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>12:50</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>117.70</u> ft.	<u>117.57</u> ft.	Date	<u>03/18/89</u> m m d d y y	<u>03/19/89</u> m m d d y y	Time	<u>12:50</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
surged with bailer and bailed	<input type="checkbox"/> 4 1																																															
surged with bailer and pumped	<input type="checkbox"/> 6 1																																															
surged with block and bailed	<input type="checkbox"/> 4 2																																															
surged with block and pumped	<input type="checkbox"/> 6 2																																															
surged with block, bailed and pumped	<input type="checkbox"/> 7 0																																															
compressed air	<input type="checkbox"/> 2 0																																															
bailed only	<input type="checkbox"/> 1 0																																															
pumped only	<input checked="" type="checkbox"/> 5 1																																															
pumped slowly	<input type="checkbox"/> 5 0																																															
Other _____	<input type="checkbox"/> 																																															
	Before Development	After Development																																														
11. Depth to Water (from top of well casing)	<u>117.70</u> ft.	<u>117.57</u> ft.																																														
Date	<u>03/18/89</u> m m d d y y	<u>03/19/89</u> m m d d y y																																														
Time	<u>12:50</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.																																														
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14. Total suspended solids	_____ mg/l	_____ mg/l																																														
15. COD	_____ mg/l	_____ mg/l																																														

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>B DAVID DUNSMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u><i>[Signature]</i></u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name DBN-89-10C	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

		Before Development	After Development
1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> _____		
3. Time spent developing well	<u>105</u> min.		
4. Depth of well (from top of well casing)	<u>190</u> ft.		
5. Inside diameter of well	<u>5.0</u> in.		
6. Volume of water in filter pack and well casing	<u>71</u> gal.		
7. Volume of water removed from well	<u>355</u> gal.		
8. Volume of water added (if any)	<u>0</u> gal.		
9. Source of water added	_____		
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)			
Additional comments on development: 			

		Before Development	After Development
11. Depth to Water (from top of well casing)		<u>112.50</u> ft.	<u>112.58</u> ft.
Date		<u>03/19/89</u> m m d d y y	<u>05/21/89</u> m m d d y y
Time		<u>10:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom		_____ inches	_____ inches
13. Water clarity		Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:			
14. Total suspended solids		_____ mg/l	_____ mg/l
15. COD		_____ mg/l	_____ mg/l

Well developed by: Person's Name and Firm Name: <u>R. DAVID DIMMERS</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William R. Dimmers</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Locality/Project Name <u>BADGER ARMY AMMUNITION PLANT</u>	Well Name <u>DBN-89-10D</u>
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | <div style="border: 1px solid black; width: 40px; height: 15px;"></div> |

3. Time spent developing well 531 min.

4. Depth of well (from top of well casing) 240 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 110.1 gal.

7. Volume of water removed from well 2700 gal.

8. Volume of water added (if any) 300 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

Additional comments on development:

11. Depth to Water
(from top of well casing)

Before Development

After Development

110.0 ft.

111.06 ft.

Date

05/06/89
m m d d y y

10/25/89
m m d d y y

Time

9:00 ☒ a.m. ☐ p.m.

____:____ ☐ a.m. ☐ p.m.

12. Sediment in well bottom

____ inches

____ inches

13. Water clarity

Clear ☐ 10
Turbid ☐ 15
(Describe)

Clear ☐ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

Well developed by: Person's Name and Firm

Name: JOSE FORTES

Firm: C.E. ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Firm: C.E. ENVIRONMENTAL

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name RADGER ARMY AMUNITION PLANT		Well Name PBM-29-11	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well <u>330</u> min. 4. Depth of well (from top of well casing) <u>113</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>30</u> gal. 7. Volume of water removed from well <u>1650</u> gal. 8. Volume of water added (if any) <u>300</u> gal. 9. Source of water added <u>DRILLING PROCESS</u> 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>106.73</u> ft.</td> <td><u>106.69</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/22/89</u> m m d d y y</td> <td><u>03/23/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>9:00</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>10:00</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____ </td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table style="width:100%;"> <tr> <td style="width:30%;">14. Total suspended solids</td> <td style="width:35%;">_____ mg/l</td> <td style="width:35%;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>106.73</u> ft.	<u>106.69</u> ft.	Date	<u>03/22/89</u> m m d d y y	<u>03/23/89</u> m m d d y y	Time	<u>9:00</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:00</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____																							
14. Total suspended solids	_____ mg/l	_____ mg/l																							
15. COD	_____ mg/l	_____ mg/l																							

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>C. E. ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William Dyck</u> Firm: <u>C. E. ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

City/Project Name BADGER ARMY AMMUNITION PLANT		Well Name PBN-89-12A	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

		Before Development	After Development
1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/>		
3. Time spent developing well	___ 6 ___ min.		
4. Depth of well (from top of well casing)	___ 102 ___ ft.		
5. Inside diameter of well	___ 4 ___ in.		
6. Volume of water in filter pack and well casing	___ 30 ___ gal.		
7. Volume of water removed from well	___ 150 ___ gal.		
8. Volume of water added (if any)	___ 0 ___ gal.		
9. Source of water added	_____		
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)			

11. Depth to Water (from top of well casing) Date Time		Before Development 87.25 ft. 03/21/89 m m d d y y 9:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	After Development 87.74 ft. 03/22/89 m m d d y y 9:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom		___ . ___ inches	___ . ___ inches
13. Water clarity		Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	___ . ___ mg/l	___ . ___ mg/l	___ . ___ mg/l
15. COD	___ . ___ mg/l	___ . ___ mg/l	___ . ___ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm Name: R. DAVID DINSMORE Firm: CE ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: Firm: CE ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name PBN-91-12B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well 1539 min. 4. Depth of well (from top of well casing) 142 ft. 5. Inside diameter of well 4.0 in. 6. Volume of water in filter pack and well casing 235.8 gal. 7. Volume of water removed from well 9235 gal. 8. Volume of water added (if any) 3000 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>88.54 ft.</td> <td>89.85 ft.</td> </tr> <tr> <td>Date</td> <td>04/26/89 m m d d y y</td> <td>10/13/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>8:50 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	88.54 ft.	89.85 ft.	Date	04/26/89 m m d d y y	10/13/89 m m d d y y	Time	8:50 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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15. COD	_____ mg/l	_____ mg/l																										

Additional comments on development: _____

Well developed by: Person's Name and Firm Name: _____ Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u><i>William Dyck</i></u> Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAF - USATHAMA		Well Name Lom-91-01	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (w/ surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>193</u> min.</p> <p>4. Depth of well (from top of well casing) <u>152</u> ft.</p> <p>5. Inside diameter of well <u>28</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>12.2</u> gal.</p> <p>7. Volume of water removed from well <u>62.0</u> gal.</p> <p>8. Volume of water added (if any) <u>0.0</u> gal.</p> <p>9. Source of water added <u>none</u></p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results) <u>VOC</u></p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (w/ surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th></th> <th>Before Development</th> <th>After Development</th> <th>24 hr + 1e</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>144.64</u> ft.</td> <td><u>144.62</u> ft.</td> <td><u>144.64</u></td> </tr> <tr> <td>Date</td> <td><u>10/16/91</u> m m d d y y</td> <td><u>10/16/91</u> m m d d y y</td> <td><u>1725</u> 10-18-91</td> </tr> <tr> <td>Time</td> <td><u>2:31</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>5:43</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td></td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> <td></td> </tr> <tr> <td>13. Water clarity</td> <td>Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)</td> <td>Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)</td> <td></td> </tr> <tr> <td colspan="4">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> <td></td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> <td></td> </tr> <tr> <td>16. Screen length (from diagram)</td> <td><u>10.0</u> ft.</td> <td></td> <td></td> </tr> </table> <p>** well not labelled - we labelled - ** grouting incomplete/collar to be installed</p>		Before Development	After Development	24 hr + 1e	11. Depth to Water (from top of well casing)	<u>144.64</u> ft.	<u>144.62</u> ft.	<u>144.64</u>	Date	<u>10/16/91</u> m m d d y y	<u>10/16/91</u> m m d d y y	<u>1725</u> 10-18-91	Time	<u>2:31</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>5:43</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.		12. Sediment in well bottom	_____ inches	_____ inches		13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)		Fill in if drilling fluids were used and well is at solid waste facility:				14. Total suspended solids	_____ mg/l	_____ mg/l		15. COD	_____ mg/l	_____ mg/l		16. Screen length (from diagram)	<u>10.0</u> ft.		
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16. Screen length (from diagram)	<u>10.0</u> ft.																																																																						

Additional comments on development:

<p>w/c = <u>-0.20</u> <u>-0.20</u></p> <p>Stick-up = <u>2.1 ±</u> <u>2.1 ±</u></p> <p>pump rate = NA</p> <p>cond. (umhos) <u>592</u></p> <p>ph (units) <u>7.7</u></p> <p>T (°C) <u>14.5</u></p> <p>cpump rate always changing</p>	<p>* - initial bottom reading = <u>151.8'</u></p> <p>- final bottom reading = <u>151.72'</u></p> <table style="width:100%;"> <tr> <th></th> <th>initial</th> <th>15 gal</th> <th>45 gal</th> <th>62 gal</th> </tr> <tr> <td>15.9</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>7.3</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>572</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>595</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		initial	15 gal	45 gal	62 gal	15.9					7.3					572					595				
	initial	15 gal	45 gal	62 gal																						
15.9																										
7.3																										
572																										
595																										

<p>Well developed by: Person's Name and Firm</p> <p>Name: <u>Nancy Roka/ Vicki Miller</u></p> <p>Firm: <u>ABB-ES</u></p>	<p>I hereby certify that the above information is true and correct to the best of my knowledge.</p> <p>Signature: <u>Nancy E. Roka</u></p> <p>Firm: <u>ABB-ES</u></p>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Ground-fos Redi-flo 2 w/ brass straining cloth and 3/8" ID tubing used for development

Purge volume = (152 - 144.64) * 62 gal
479 gal

Facility/Project Name <u>LOM-91-02</u>	Well Name <u>BAAP/USATHAMA</u>
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/> 4 1
surged with bailer and pumped	<input type="checkbox"/> 6 1
surged with block and bailed	<input type="checkbox"/> 4 2
surged with block and pumped	<input type="checkbox"/> 6 2
surged with block, bailed and pumped	<input type="checkbox"/> 7 0
compressed air	<input type="checkbox"/> 2 0
bailed only	<input type="checkbox"/> 1 0
pumped only (with surging)	<input checked="" type="checkbox"/> 5 1
pumped slowly	<input type="checkbox"/> 5 0
Other _____	<input type="checkbox"/> _____

3. Time spent developing well 20 min.

4. Depth of well (from top of well casing) 142.1 ft.

5. Inside diameter of well 4.00 in.

6. Volume of water in filter pack and well casing 18.6 gal.

7. Volume of water removed from well 93.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>138.67</u> ft.	<u>130.64</u> ft. <u>24.5</u> in.
Date	<u>11/10/91</u> m m d d y y	<u>11/10/91</u> m m d d y y
Time	<u>09:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:30</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m. <u>15:20</u>
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l
16. Screen length	<u>10.0</u> ft.	

17. Pump used was Grundfos Redi-Flow 2 w/ straining cloth

Additional comments on development:

	<u>19</u>	<u>38</u>	<u>56</u>	<u>74</u>	<u>93</u>
T (°C)	<u>11.3</u>	<u>11.5</u>	<u>11.6</u>	<u>11.4</u>	<u>11.2</u>
pH (units)	<u>7.2</u>	<u>7.4</u>	<u>7.5</u>	<u>7.5</u>	<u>7.5</u>
cond. (µmhos)	<u>700</u>	<u>710</u>	<u>709</u>	<u>711</u>	<u>714</u>
Time	<u>09:16</u>	<u>09:32</u>	<u>09:48</u>	<u>10:04</u>	<u>10:20</u>

well to casing: 0.12
stick-up: 2.30
initial depth to: 140.95
bottom
final depth to: 148.98
bottom 146.95

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>D. VIV BUSHBERGER/D. DICKE</u>	Signature: <u>D. F. vVBushberger</u>
Firm: <u>ABB-ES</u>	Firm: <u>ABB-ES</u>

Locality/Project Name SADGER ARMY AMUNITION PLANT		Well Name LOM-89-01	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> 3. Time spent developing well _____ 60 min. 4. Depth of well (from top of well casing) 156 ft. 5. Inside diameter of well 4.0 in. 6. Volume of water in filter pack and well casing 34 gal. 7. Volume of water removed from well 170 gal. 8. Volume of water added (if any) 0 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>142.71 ft.</td> <td>142.87 ft.</td> </tr> <tr> <td>Date</td> <td>03/05/89 m m d d y y</td> <td>03/06/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>11:30 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>11:00 <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	142.71 ft.	142.87 ft.	Date	03/05/89 m m d d y y	03/06/89 m m d d y y	Time	11:30 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	11:00 <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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15. COD	_____ mg/l	_____ mg/l																										

Additional comments on development:

Well developed by: Person's Name and Firm Name: R. DAVID DINGMARE Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT	Well Name LON-89-02A
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> _____ |

3. Time spent developing well **105** min.

4. Depth of well (from top of well casing) **156** ft.

5. Inside diameter of well **4.0** in.

6. Volume of water in filter pack and well casing **32** gal.

7. Volume of water removed from well **160** gal.

8. Volume of water added (if any) **6** gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

11. Depth to Water
(from top of
well casing)

Date

Time

12. Sediment in well
bottom

13. Water clarity

Before Development

After Development

145.67 ft.

146.20 ft.

02/06/89
m m d d y y

02/07/89
m m d d y y

8:45 ☒ a.m.
☐ p.m.

12:06 ☐ a.m.
☐ p.m.

_____ inches

_____ inches

Clear ☒ 10
Turbid ☐ 15
(Describe)

Clear ☐ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended
solids

15. COD

_____ mg/l

_____ mg/l

_____ mg/l

_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Name: **R. DAVID DINGMORE**

Firm: **C. E. ENVIRONMENTAL**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **William J. ...**

Firm: **C. E. ENVIRONMENTAL**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name LOW-89-02B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well _____ 90 min. 4. Depth of well (from top of well casing) 20.0 ft. 5. Inside diameter of well 4.0 in. 6. Volume of water in filter pack and well casing 51 gal. 7. Volume of water removed from well 255 gal. 8. Volume of water added (if any) 0 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>146.17 ft.</td> <td>145.68 ft.</td> </tr> <tr> <td>Date</td> <td>03/06/89 m m d d y y</td> <td>03/07/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>11:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>12:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> </table> <div style="border: 1px solid black; padding: 5px;"> Fill in if drilling fluids were used and well is at solid waste facility: </div> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">14. Total suspended solids</td> <td style="width:35%;">_____ mg/l</td> <td style="width:35%;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	146.17 ft.	145.68 ft.	Date	03/06/89 m m d d y y	03/07/89 m m d d y y	Time	11:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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15. COD	_____ mg/l	_____ mg/l																							

Additional comments on development: _____

Well developed by: Person's Name and Firm Name: R DAVID DINSMORE Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: William Dyer Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name SADGER ARMY AMUNITION PLANT		Well Name LON-89-03A	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well _____ 60 min.</p> <p>4. Depth of well (from top of well casing) <u>160</u> ft.</p> <p>5. Inside diameter of well _____ 4.0 in.</p> <p>6. Volume of water in filter pack and well casing _____ 31 gal.</p> <p>7. Volume of water removed from well <u>155</u> gal.</p> <p>8. Volume of water added (if any) _____ 0 gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>147.49</u> ft.</td> <td><u>147.53</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/05/89</u> m m d d y y</td> <td><u>03/06/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Lot of material</u> <u>water cloudy</u> <u>and colored</u> <u>brown</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">14. Total suspended solids</td> <td style="width:35%;">_____ mg/l</td> <td style="width:35%;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>147.49</u> ft.	<u>147.53</u> ft.	Date	<u>03/05/89</u> m m d d y y	<u>03/06/89</u> m m d d y y	Time	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Lot of material</u> <u>water cloudy</u> <u>and colored</u> <u>brown</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DIMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT	Well Name LOW-89-03B
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____
	DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No
2. Well development method

surged with bailer and bailed	<input type="checkbox"/>	4 1
surged with bailer and pumped	<input type="checkbox"/>	6 1
surged with block and bailed	<input type="checkbox"/>	4 2
surged with block and pumped	<input type="checkbox"/>	6 2
surged with block, bailed and pumped	<input type="checkbox"/>	7 0
compressed air	<input type="checkbox"/>	2 0
bailed only	<input type="checkbox"/>	1 0
pumped only	<input checked="" type="checkbox"/>	5 1
pumped slowly	<input type="checkbox"/>	5 0
Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>
3. Time spent developing well 75 min.
4. Depth of well (from top of well casing) 199 ft.
5. Inside diameter of well 4.0 in.
6. Volume of water in filter pack and well casing 56 gal.
7. Volume of water removed from well 280 gal.
8. Volume of water added (if any) 0 gal.
9. Source of water added _____
10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>147.14</u> ft.	<u>147.18</u> ft.
Date	<u>03/05/89</u> m m d d y y	<u>03/06/89</u> m m d d y y
Time	<u>12:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
---	---

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP - USATHAMA	Well Name SPN-91-02D
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____
	DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/> 4 1
surged with bailer and pumped	<input type="checkbox"/> 6 1
surged with block and bailed	<input type="checkbox"/> 4 2
surged with block and pumped	<input type="checkbox"/> 6 2
surged with block, bailed and pumped	<input type="checkbox"/> 7 0
compressed air	<input type="checkbox"/> 2 0
bailed only	<input type="checkbox"/> 1 0
pumped only (with surging)	<input checked="" type="checkbox"/> 5 1
pumped slowly	<input type="checkbox"/> 5 0
Other _____	<input type="checkbox"/> _____

3. Time spent developing well 945 min.

4. Depth of well (from top of well casing) 184.8 ft

5. Inside diameter of well 3.75 in.

6. Volume of water in filter pack and well casing 107.0 gal.

7. Volume of water removed from well 3536.0 gal.

8. Volume of water added (if any) 1000.0 gal.

9. Source of water added BPW #2

10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>62.15</u> ft	<u>62.25</u> ft 123
Date	<u>11/18/91</u> m m d d y y	<u>11/20/91</u> 11/20/91 m m d d y y
Time	<u>15:40</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. 1630
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l
16. Screen length	<u>10.0</u> ft.	

Fill in if drilling fluids were used and well is at solid waste facility:

Additional comments on development: final

	11/18/91	11/19/91	11/20/91	11/21/91
T (°C)	12.1	10.5	11.6	11.3
pH (units)	8.5	7.8	8.6	8.9
cond. (µmhos)	954	590	345	379
Time	1542	1315	1115	1445

well to casing: -.10'
stick-up: 2.40' from GRND
initial depth to: 184.79'
bottom
final depth to: 184.11'
bottom **184.2**

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>S. DAVID LOUCKS</u>	Signature: <u>S. David Loucks</u>
Firm: <u>ABB ENVIRONMENTAL SERVICES</u>	Firm: <u>ABB ENVIRONMENTAL SERVICES</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

11/18/91 Pump 1 hr.
11/19/91 Started at 0730. Pump down at 0800. Back up 0730.
STIPPLE PUMPING AT 1645 11/19/91

11/20/91 - RAN OUT OF GAS AT 1140
RESUMED PUMPING AT 1155

METAL WELL PIPE ABOVE GROUND SURFACE - 2.5 ft
PVC WELL CASING TOP BELOW METAL PIPE TOP - 2.0 IN.

ABB Environmental Services, Inc.

MONITORING WELL DEVELOPMENT FORM

Facility/Project Name BAAP- USATHAMA		Well Name SPN-91-03D	
License, Permit or Monitoring Number -----		WIS Unique Well Number -----	
		DNR Well Number -----	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table border="0"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>625</u> min.</p> <p>4. Depth of well (from top of well casing) <u>203.4</u> ft.</p> <p>5. Inside diameter of well <u>3.75</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>124.0</u> 620.7 gal</p> <p>7. Volume of water removed from well <u>3620.0</u> gal.</p> <p>8. Volume of water added (if any) <u>1000.0</u> gal.</p> <p>9. Source of water added <u>BPW #2</u></p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (with surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th></th> <th>Before Development</th> <th>After Development</th> <th>24 hrs later</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>57.24</u> ft.</td> <td><u>57.23</u> ft.</td> <td><u>57.23</u></td> </tr> <tr> <td>Date</td> <td><u>11/31/91</u> m m d d y y</td> <td><u>11/22/91</u> m m d d y y</td> <td><u>11-23-9</u></td> </tr> <tr> <td>Time</td> <td><u>07:45</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>11:30</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>1350</u></td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>----- inches</td> <td>----- inches</td> <td></td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>SLIGHTLY CLOUDY</u> </td> <td> Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> <td></td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>14. Total suspended solids</td> <td>----- mg/l</td> <td>----- mg/l</td> </tr> <tr> <td>15. COD</td> <td>----- mg/l</td> <td>----- mg/l</td> </tr> <tr> <td>16. Screen length</td> <td><u>10.0</u> ft.</td> <td></td> </tr> </table>		Before Development	After Development	24 hrs later	11. Depth to Water (from top of well casing)	<u>57.24</u> ft.	<u>57.23</u> ft.	<u>57.23</u>	Date	<u>11/31/91</u> m m d d y y	<u>11/22/91</u> m m d d y y	<u>11-23-9</u>	Time	<u>07:45</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>11:30</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>1350</u>	12. Sediment in well bottom	----- inches	----- inches		13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>SLIGHTLY CLOUDY</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)		14. Total suspended solids	----- mg/l	----- mg/l	15. COD	----- mg/l	----- mg/l	16. Screen length	<u>10.0</u> ft.	
surged with bailer and bailed	<input type="checkbox"/>	4 1																																																														
surged with bailer and pumped	<input type="checkbox"/>	6 1																																																														
surged with block and bailed	<input type="checkbox"/>	4 2																																																														
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15. COD	----- mg/l	----- mg/l																																																														
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Additional comments on development:

21640

T (°C)	<u>11.2</u>	<u>10.7</u>	<u>10.2</u>	<u>NOT TAKEN</u>
pH (units)	<u>6.7</u>	<u>6.7</u>	<u>7.2</u>	<u>7.0</u>
cond. (µmhos)	<u>520</u>	<u>480</u>	<u>469</u>	<u>545</u>
Time	<u>0900</u>	<u>1416</u>	<u>1640</u>	<u>1110</u>
	<u>11-21-91</u>	<u>11-21-91</u>	<u>11-21-91</u>	<u>11-22-91</u>

Well to casing: - 2.0" =
stick-up: 2.5' =
initial depth to: 203.39
bottom
final depth to: 203.40
bottom

20340

Well developed by: Person's Name and Firm

Name: B. DAVID LOUCKS

Firm: ABB ENVIRONMENTAL SERVICES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: B. David Loucks

Firm: ABB ENVIRONMENTAL SERVICES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

11-21-91 PUMPING BEGINS AT 0850 @ 7.6 GPM

11-1-91 2nd PUMP BEGINS AT 1320 @ 4.9 GPM

11-22-91 Pump 2 ...

METAL WELL PIPE 2.45 FT ABOVE GROUND

ABB Environmental Services, Inc.

MONITORING WELL DEVELOPMENT FORM

Facility/Project Name BAAP- USATHAMA	Well Name SPN-91-04D
License, Permit or Monitoring Number -----	Wis. Unique Well Number ----- DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|--|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other | <input type="checkbox"/> |

3. Time spent developing well **615** min.

4. Depth of well (from top of well casing) **203.83** ft.

5. Inside diameter of well **3.75** in.

6. Volume of water in filter pack and well casing **225.5** gal.

7. Volume of water removed from well **3773.5** gal.

8. Volume of water added (if any) **1000.0** gal.

9. Source of water added **BPW #2**

10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Date

Time

12. Sediment in well bottom

13. Water clarity

Before Development

After Development

24.5 late

40.65 ft.

40.72 ft. **40.7**

11/22/91
m m d d y y

11/23/91
m m d d y y

12:22 a.m.
p.m.

13:40 a.m.
p.m.

inches

inches

Clear ☒ 10

Turbid ☐ 15

(Describe)

Clear ☒ 20

Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

15. COD

16. Screen length

mg/l

mg/l

mg/l

mg/l

10.0 ft.

Additional comments on development

T (°C)	NOT TAKEN	NOT TAKEN	NOT TAKEN	NOT TAKEN
pH (units)	6.0	6.0	7.0	7.0
cond. (µmhos)	455	415	418	401
Time	12:37	0827	1037	1251
	11-22-91	11-23-91	11-23-91	11-23-91

Well to casing: **36/2.45**

initial depth to: **207.75** ft.

final depth to: **203.85** ft.

203.83

Well developed by: Person's Name and Firm

Name: **B. DAVID LOUCKS**

Firm: **ABB ENVIRONMENTAL SERVICES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:

B. David Loucks

Firm:

ABB ENVIRONMENTAL SERVICES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

BEGAN PUMPING AT 1135 @ 3.5 Gpm - PUMPING ENDS AT 1635 ON 11-22-91

BEGAN PUMPING AT 0825 11-23-91 DURING PUMPING & CONCENTRATION CAME AT 0.5. 11-23-91

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name SPN-89-01C	
License, Permit or Monitoring Number 		Wis. Unique Well Number DNR Well Number 	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width: 100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> </td></tr> </table> <p>3. Time spent developing well _____ min.</p> <p>4. Depth of well (from top of well casing) <u>120</u> ft.</p> <p>5. Inside diameter of well <u>40</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>59</u> gal.</p> <p>7. Volume of water removed from well <u>295</u> gal.</p> <p>8. Volume of water added (if any) <u>6</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> 	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;"></th> <th style="width: 35%;">Before Development</th> <th style="width: 35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td style="text-align: center;"><u>65.11</u> ft.</td> <td style="text-align: center;"><u>66.41</u> ft.</td> </tr> <tr> <td>Date</td> <td style="text-align: center;"><u>04/29/90</u> m m d d y y</td> <td style="text-align: center;"><u>10/25/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td style="text-align: center;">____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td style="text-align: center;">____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td style="text-align: center;">____ . ____ inches</td> <td style="text-align: center;">____ . ____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____ </td> </tr> </tbody> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table style="width: 100%;"> <tr> <td style="width: 30%;">14. Total suspended solids</td> <td style="width: 35%; text-align: center;">_____ mg/l</td> <td style="width: 35%; text-align: center;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td style="text-align: center;">_____ mg/l</td> <td style="text-align: center;">_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>65.11</u> ft.	<u>66.41</u> ft.	Date	<u>04/29/90</u> m m d d y y	<u>10/25/89</u> m m d d y y	Time	____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ . ____ inches	____ . ____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
surged with bailer and bailed	<input type="checkbox"/> 4 1																																												
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14. Total suspended solids	_____ mg/l	_____ mg/l																																											
15. COD	_____ mg/l	_____ mg/l																																											

Additional comments on development:

Well developed by: Person's Name and Firm

Name: _____

Firm: C E ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: 

Firm: CE ENVIRONMENTAL

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT	Well Name SDA-89-02A	
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | <div style="border: 1px solid black; width: 40px; height: 15px;"></div> |

3. Time spent developing well 210 min.

4. Depth of well (from top of well casing) 72 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 32 gal.

7. Volume of water removed from well 160 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

11. Depth to Water
(from top of
well casing)

Date

Time

12. Sediment in well
bottom

13. Water clarity

Before Development

After Development

58.80 ft.

58.70 ft.

05/18/96
m m d d y y

05/19/89
m m d d y y

8:30 ☒ a.m. ☐ p.m.

10:00 ☐ a.m. ☒ p.m.

_____ inches

_____ inches

Clear ☐ 10

Turbid ☒ 15

(Describe)

WATER MARKED
CLOUDY - FINE
SAND FOUND
NO PUMP.

Clear ☐ 20

Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended
solids

15. COD

_____ mg/l

_____ mg/l

_____ mg/l

_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Name: R. DAVID DIMMOCK

Firm: C E ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: William Dyck

Firm: C E ENVIRONMENTAL

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name SPN-89-02B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well <u>925</u> min. 4. Depth of well (from top of well casing) <u>100</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>50</u> gal. 7. Volume of water removed from well <u>4675</u> gal. 8. Volume of water added (if any) <u>1450</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>59.69</u> ft.</td> <td><u>58.0</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>04/30/89</u> m m d d y y</td> <td><u>05/02/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>8:15</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>10:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> </table> Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l 15. COD _____ mg/l		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>59.69</u> ft.	<u>58.0</u> ft.	Date	<u>04/30/89</u> m m d d y y	<u>05/02/89</u> m m d d y y	Time	<u>8:15</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>DIVA LOBLANK</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name SPN-89-02C	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well 1261 min. 4. Depth of well (from top of well casing) 131 ft. 5. Inside diameter of well 4.0 in. 6. Volume of water in filter pack and well casing 74.7 gal. 7. Volume of water removed from well 2570 gal. 8. Volume of water added (if any) 2400 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>57.76 ft.</td> <td>59 ft.</td> </tr> <tr> <td>Date</td> <td>05/08/89 m m d d y y</td> <td>10/25/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>11:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>____ mg/l</td> <td>____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>____ mg/l</td> <td>____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	57.76 ft.	59 ft.	Date	05/08/89 m m d d y y	10/25/89 m m d d y y	Time	11:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	____ mg/l	____ mg/l	15. COD	____ mg/l	____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: TWA LE BLANC Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: William K. [Signature] Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Activity/Project Name BADGER ARMY AMUNITION PLANT		Well Name SPN -89-03B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
License, Permit or Monitoring Number _____		DNR Well Number _____	

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> 	11. Depth to Water (from top of well casing) Before Development After Development _____ _ 52.87 ft. _ 54.23 ft. Date 05/01/89 06/25/89 m m d d y y m m d d y y Time 12:00 <input type="checkbox"/> a.m. _____ <input type="checkbox"/> a.m. _____ <input type="checkbox"/> p.m. _____ <input type="checkbox"/> p.m. 12. Sediment in well bottom _____ inches _____ inches 13. Water clarity Clear <input checked="" type="checkbox"/> 10 Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 15 Turbid <input type="checkbox"/> 25 (Describe) _____ (Describe) _____ _____ _____ _____ _____ _____
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3. Time spent developing well _ 943 min. 4. Depth of well (from top of well casing) _ 95. ft. 5. Inside diameter of well _ 4.0 in. 6. Volume of water in filter pack and well casing _ 37. gal. 7. Volume of water removed from well 5660. gal. 8. Volume of water added (if any) 1825. gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l _____ mg/l 15. COD _____ mg/l _____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm

Name: _____

Firm:

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:

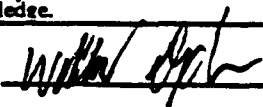
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Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name SPN-89-03C	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well 1448 min.</p> <p>4. Depth of well (from top of well casing) 129 ft</p> <p>5. Inside diameter of well 4.0 in.</p> <p>6. Volume of water in filter pack and well casing 58 gal</p> <p>7. Volume of water removed from well 3690 gal</p> <p>8. Volume of water added (if any) 2800 gal</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>53.08 ft</td> <td>54.41 ft</td> </tr> <tr> <td>Date</td> <td>04/28/89 m m d d y y</td> <td>10/25/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>15:30 <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	53.08 ft	54.41 ft	Date	04/28/89 m m d d y y	10/25/89 m m d d y y	Time	15:30 <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: _____ Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature:  Firm: C E ENVIRONMENTAL
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Facility/Project Name 3ADGER ARMY AMUNITION PLANT		Well Name SPN-89-04B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other <input type="checkbox"/> _____ 3. Time spent developing well <u>75</u> min. 4. Depth of well (from top of well casing) <u>24</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>33</u> gal. 7. Volume of water removed from well <u>165</u> gal. 8. Volume of water added (if any) <u>0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>38.77</u> ft.</td> <td><u>38.88</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/19/89</u> m m d d y y</td> <td><u>03/21/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>cloudy</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> </tr> </table> <div style="border: 1px solid black; padding: 5px;"> Fill in if drilling fluids were used and well is at solid waste facility: </div> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">14. Total suspended solids</td> <td style="width:35%;">_____ mg/l</td> <td style="width:35%;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>38.77</u> ft.	<u>38.88</u> ft.	Date	<u>03/19/89</u> m m d d y y	<u>03/21/89</u> m m d d y y	Time	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>cloudy</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>LEE ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William Lich</u> Firm: <u>LEE ENVIRONMENTAL</u>
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Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name SPN-89-04C	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
		DNR Well Number _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well <u>75</u> min.</p> <p>4. Depth of well (from top of well casing) <u>106</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>76</u> gal.</p> <p>7. Volume of water removed from well <u>380</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>38.3</u> ft.</td> <td><u>39.78</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>05/01/89</u> m m d d y y</td> <td><u>10/25/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>16:15</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>38.3</u> ft.	<u>39.78</u> ft.	Date	<u>05/01/89</u> m m d d y y	<u>10/25/89</u> m m d d y y	Time	<u>16:15</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	____ : ____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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surged with block, bailed and pumped	<input type="checkbox"/> 7 0																																															
compressed air	<input type="checkbox"/> 2 0																																															
bailed only	<input type="checkbox"/> 1 0																																															
pumped only	<input checked="" type="checkbox"/> 5 1																																															
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Additional comments on development:

Well developed by: Person's Name and Firm Name: _____ Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

County/Project Name BADGER ARMY AMMUNITION PLANT		Well Name SDN-89-05A	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

		Before Development	After Development
1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> _____		
3. Time spent developing well	_____ min.		
4. Depth of well (from top of well casing)	<u>60</u> ft.		
5. Inside diameter of well	<u>4.0</u> in.		
6. Volume of water in filter pack and well casing	<u>40</u> gal.		
7. Volume of water removed from well	<u>200</u> gal.		
8. Volume of water added (if any)	<u>0</u> gal.		
9. Source of water added	_____		
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)			

		Before Development	After Development
11. Depth to Water (from top of well casing)		<u>40.0</u> ft.	<u>40.0</u> ft.
Date		<u>03/07/89</u> m m d d y y	<u>03/08/89</u> m m d d y y
Time		<u>11:15</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>12:00</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom		_____ inches	_____ inches
13. Water clarity		Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:			
14. Total suspended solids		_____ mg/l	_____ mg/l
15. COD		_____ mg/l	_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. David Dierker</u> Firm: <u>C. E. Environmental</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C. E. Environmental</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name
BADGER ARMY AMMUNITION PLANT

Well Name
SPN-89-0513

License, Permit or Monitoring Number

Wis. Unique Well Number

DNR Well Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☐ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only ☒ 5 1
pumped slowly ☐ 5 0
Other ☐

3. Time spent developing well 54 min.

4. Depth of well (from top of well casing) 88 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 44 gal.

7. Volume of water removed from well 220 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Before Development

After Development

39 14 ft.

40.39 ft.

Date

05/01/89
m m d d y y

10/25/89
m m d d y y

Time

14:06 ☐ a.m. ☒ p.m.

 ☐ a.m. ☐ p.m.

12. Sediment in well bottom

 inches

 inches

13. Water clarity

Clear ☐ 10

Clear ☐ 20

Turbid ☐ 15

Turbid ☐ 25

(Describe)

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

 mg/l

 mg/l

15. COD

 mg/l

 mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Name: TINA LE BLANC

Firm: C E ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Firm: C E ENVIRONMENTAL

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>BADGER ARMY AMMUNITION PLANT</u>		Well Name <u>DBM-89-01</u>	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

	Before Development	After Development
1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method		
surged with bailer and bailed <input type="checkbox"/> 4 1		
surged with bailer and pumped <input type="checkbox"/> 6 1		
surged with block and bailed <input type="checkbox"/> 4 2		
surged with block and pumped <input type="checkbox"/> 6 2		
surged with block, bailed and pumped <input type="checkbox"/> 7 0		
compressed air <input type="checkbox"/> 2 0		
bailed only <input type="checkbox"/> 1 0		
pumped only <input checked="" type="checkbox"/> 5 1		
pumped slowly <input type="checkbox"/> 5 0		
Other _____ <input type="checkbox"/> _____		
3. Time spent developing well ____ <u>35</u> min.		
4. Depth of well (from top of well casing) ____ <u>124</u> . ft.		
5. Inside diameter of well ____ <u>4.0</u> in.		
6. Volume of water in filter pack and well casing ____ <u>27</u> . gal.		
7. Volume of water removed from well ____ <u>185</u> . gal.		
8. Volume of water added (if any) ____ <u>0</u> . gal.		
9. Source of water added _____		
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)		

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>110.55</u> ft.	<u>112.00</u> ft.
Date	<u>03/06/89</u> m m d d y y	<u>03/07/89</u> m m d d y y
Time	<u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	____ . inches	____ . inches
13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	____ . mg/l	____ . mg/l
15. COD	____ . mg/l	____ . mg/l

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. David Dineen</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William Dineen</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT	Well Name DBM-89-02A
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> _____ |

3. Time spent developing well _____ **90** min.

4. Depth of well (from top of well casing) **120** ft.

5. Inside diameter of well **4.0** in.

6. Volume of water in filter pack and well casing **37** gal.

7. Volume of water removed from well **185** gal.

8. Volume of water added (if any) **0** gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

Additional comments on development:

11. Depth to Water
(from top of well casing)

Before Development After Development

107.29 ft. **107.63** ft.

Date

05/06/89 **03/07/89**
m m d d y y m m d d y y

Time

15:00 ☐ a.m. **15:00** ☒ p.m.

12. Sediment in well bottom

_____ inches _____ inches

13. Water clarity

Clear ☒ 10 Clear ☐ 20
Turbid ☐ 15 Turbid ☐ 25
(Describe) (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l _____ mg/l

15. COD

_____ mg/l _____ mg/l

Well developed by: Person's Name and Firm

Name: **R. DAVID DINSMORE**

Firm: **C-E - ENVIRONMENTAL**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **William Dyer**

Firm: **C E ENVIRONMENTAL**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

County/Project Name BADGER ARMY AMUNITION DLWT		Well Name DBN-89-02B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

		Before Development	After Development
1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> _____		
3. Time spent developing well	___ 75 min.		
4. Depth of well (from top of well casing)	___ 151 ft.		
5. Inside diameter of well	___ 4.0 in.		
6. Volume of water in filter pack and well casing	___ 37 gal.		
7. Volume of water removed from well	___ 185 gal.		
8. Volume of water added (if any)	___ 0 gal.		
9. Source of water added _____			
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)			

	Before Development	After Development
11. Depth to Water (from top of well casing)	107.71 ft.	107.72 ft.
Date	03/07/89 m m d d y y	03/08/89 m m d d y y
Time	8:30 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	10:00 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	___ inches	___ inches
13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	___ mg/l	___ mg/l
15. COD	___ mg/l	___ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Name: **R. DAVID DUBOISE**

Firm: **C.E. ENVIRONMENTAL**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **William Dyck**

Firm: **C.E. ENVIRONMENTAL**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name DBM-89-03	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other <input type="checkbox"/> _____ 3. Time spent developing well <u>60</u> min. 4. Depth of well (from top of well casing) <u>133</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>45</u> gal. 7. Volume of water removed from well <u>335</u> gal. 8. Volume of water added (if any) <u>0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>119.59</u> ft.</td> <td><u>119.65</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/17/89</u> m m d d y y</td> <td><u>03/18/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>WATER CLOUDY</u> <u>UP AFTER</u> <u>2nd volume</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> </tr> </table> Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l 15. COD _____ mg/l		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>119.59</u> ft.	<u>119.65</u> ft.	Date	<u>03/17/89</u> m m d d y y	<u>03/18/89</u> m m d d y y	Time	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>WATER CLOUDY</u> <u>UP AFTER</u> <u>2nd volume</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
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Date	<u>03/17/89</u> m m d d y y	<u>03/18/89</u> m m d d y y																	
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name DBN-89-01A	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well <u> 75 </u> min. 4. Depth of well (from top of well casing) <u>154</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>34.5</u> gal. 7. Volume of water removed from well <u>178.5</u> gal. 8. Volume of water added (if any) <u>0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>136.36</u> ft.</td> <td><u>136.35</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/01/89</u> m m d d y y</td> <td><u>03/02/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>15:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td><u> </u> inches</td> <td><u> </u> inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td><u> </u> mg/l</td> <td><u> </u> mg/l</td> </tr> <tr> <td>15. COD</td> <td><u> </u> mg/l</td> <td><u> </u> mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>136.36</u> ft.	<u>136.35</u> ft.	Date	<u>03/01/89</u> m m d d y y	<u>03/02/89</u> m m d d y y	Time	<u>15:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	<u> </u> inches	<u> </u> inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	<u> </u> mg/l	<u> </u> mg/l	15. COD	<u> </u> mg/l	<u> </u> mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINGMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name SADGER ARMY AMMUNITION PLANT		Well Name DBN-89-04B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>75</u> min.</p> <p>4. Depth of well (from top of well casing) <u>189</u> ft.</p> <p>5. Inside diameter of well <u>40</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>40</u> gal.</p> <p>7. Volume of water removed from well <u>200</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other _____	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>140.57</u> ft.</td> <td><u>140.61</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/02/89</u> m m d d y y</td> <td><u>03/03/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>BROWN color</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>140.57</u> ft.	<u>140.61</u> ft.	Date	<u>03/02/89</u> m m d d y y	<u>03/03/89</u> m m d d y y	Time	<u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>BROWN color</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINGMORSE</u> Firm: <u>CE ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u><i>[Signature]</i></u> Firm: <u>CE ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>BADGER ARMY AMMUNITION PLANT</u>		Well Name <u>DEM-89-05</u>	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well <u>90</u> min. 4. Depth of well (from top of well casing) <u>124</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>35</u> gal. 7. Volume of water removed from well <u>175</u> gal. 8. Volume of water added (if any) <u>0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>113.97</u> ft.</td> <td><u>113.81</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/05/89</u> m m d d y y</td> <td><u>03/06/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>2:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>9:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CLEARED UP</u> <u>METER 3RD</u> <u>VOLUME</u> <u>PURGED</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">14. Total suspended solids</td> <td style="width:35%;">_____ mg/l</td> <td style="width:35%;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>113.97</u> ft.	<u>113.81</u> ft.	Date	<u>03/05/89</u> m m d d y y	<u>03/06/89</u> m m d d y y	Time	<u>2:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>9:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>CLEARED UP</u> <u>METER 3RD</u> <u>VOLUME</u> <u>PURGED</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: _____ Firm: _____
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP- USATHAMA Well Name ELN-91-07A

License, Permit or Monitoring Number ----- WIS. Unique Well Number ----- DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☐ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only (with surging) ☒ 5 1
pumped slowly ☐ 5 0
Other ☐ -----

3. Time spent developing well 5 0 min.

4. Depth of well (from top of well casing) 128.2 ft.

5. Inside diameter of well 3.75 in.

6. Volume of water in filter pack and well casing 27.0 gal.

7. Volume of water removed from well 125 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added NA

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

Additional comments on development

	10/16/91	10/17/91	10/18/91	10/19/91
T (°C)	10.4	10.7	10.9	10.7
pH (units)	8.3	7.5	7.3	7.4
cond. (µmhos)	448	444	439	439
Time	1055	1006	1117	1128

11. Depth to Water (from top of well casing) Before Development 120.53 ft. After Development 120.52 ft. ²⁴ later

Date 11/21/91 11/21/91
m m d d y y m m d d y y

Time 10:55 a.m. 11:45 a.m. ^{13:20}
p.m. p.m.

12. Sediment in well bottom ----- inches ----- inches

13. Water clarity Clear ☐ 10 Turbid ☒ 15
(Describe) initial 11/ (Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids ----- mg/l ----- mg/l

15. COD ----- mg/l ----- mg/l

16. Screen length 10.0 ft.

well to casing: 2.1
stick-up: 2.7
initial depth to: 128.20
bottom
final depth to: 128.25
bottom 128.19

Well developed by: Person's Name and Firm

Name: D. DIANNE + L. CARTER

Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP- USATHAMA		Well Name ELN-91-07B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well <u>30</u> min.</p> <p>4. Depth of well (from top of well casing) <u>146.9</u> ft</p> <p>5. Inside diameter of well <u>3.75</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>26.0</u> gal.</p> <p>7. Volume of water removed from well <u>180.0</u> gal.</p> <p>8. Volume of water added (if any) <u>0.0</u> gal.</p> <p>9. Source of water added <u>NA</u></p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only (with surging)	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<p>11. Depth to Water (from top of well casing)</p> <table style="width:100%;"> <tr> <th>Before Development</th> <th>After Development</th> </tr> <tr> <td><u>118.24</u> ft</td> <td><u>118.24</u> ft ^{24 hrs later}</td> </tr> </table> <p>Date <u>11/21/91</u> _{m m d d y y} <u>11/21/91</u> _{m m d d y y}</p> <p>Time <u>09:55</u> _{a.m.} <u>10:25</u> _{p.m.} <u>13:01</u> _{p.m.}</p> <p>12. Sediment in well bottom _____ inches</p> <p>13. Water clarity</p> <table style="width:100%;"> <tr> <td>Clear <input type="checkbox"/> 10</td> <td>Clear <input checked="" type="checkbox"/> 20</td> </tr> <tr> <td>Turbid <input checked="" type="checkbox"/> 15</td> <td>Turbid <input type="checkbox"/> 25</td> </tr> </table> <p>(Describe) <u>initially / clear after 180 gallons</u></p> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p> <p>16. Screen length <u>100? ft.</u></p>	Before Development	After Development	<u>118.24</u> ft	<u>118.24</u> ft ^{24 hrs later}	Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20	Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25
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Additional comments on development:

	Initial	60	120	180
T (°C)	10.2	10.4	10.6	10.6
pH (units)	7.8	8.4	8.3	8.2
cond. (µmhos)	413	426	427	429
Time	09:55	10:05	10:15	10:25

well to casing: -0.61
 stick-up: 2-28
 initial depth to: 146.92
 bottom
 final depth to: 146.95
 bottom

Well developed by: Person's Name and Firm

 Name: DAVID B DIORNE & LAURA CARTER

 Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

 Signature: David B Diorne

 Firm: ABB ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP-USATHAMA	Well Name ELM-91-10
License, Permit or Monitoring Number -----	WIS Unique Well Number ----- DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-------|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input checked="" type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) NP | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other | <input type="checkbox"/> | ----- |

3. Time spent developing well 30 min.

4. Depth of well (from top of well casing) 156.9 ft

5. Inside diameter of well 3.75 in.

6. Volume of water in filter pack and well casing 28.5
142.0 gal.

7. Volume of water removed from well 142.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Date

Time

12. Sediment in well bottom

13. Water clarity

Before Development

After Development

145.63 ft

145.67 ft ²⁴¹⁵ ₁₀₁₀

11/21/91
m m d d y y

11/21/91 11:41
m m d d y y

12:07 ☐ a.m. ☒ p.m.

12:37 ☐ a.m. ☒ p.m. 12:35

____ inches

____ inches

Clear ☐ 10
Turbid ☒ 15
(Describe)

Clear ☒ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

15. COD

16. Screen length

____ mg/l

____ mg/l

____ mg/l

____ mg/l

15.0 ft

Additional comments on development:

	<u>Initial</u>	<u>47.5</u>	<u>9.5</u>	<u>142.5</u>
T (°C)	<u>10.9</u>	<u>11.0</u>	<u>11.0</u>	<u>11.1</u>
pH (units)	<u>8.6</u>	<u>8.4</u>	<u>7.3</u>	<u>7.4</u>
cond. (µmhos)	<u>568</u>	<u>649</u>	<u>680</u>	<u>707</u>
Time	<u>1207</u>	<u>1217</u>	<u>1257</u>	<u>1237</u>

well to casing: -0.11
stick-up: 2.20

initial depth to: 156.94
bottom

final depth to: 156.97
bottom

156.98

Well developed by: Person's Name and Firm

Name: DAVID B. DIONNG T LAURA E. CARRE

Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

WELL DEVELOPMENT FORMS

Background Wells

BGM-91-01
BGM-91-02
BGM-91-03

Propellant Burning Ground

PBN-91-06C
PBN-91-06D
PBN-91-12C
PBN-91-12D
PBN-89-01B
PBN-89-01C
PBN-89-01D
PBN-89-02B
PBN-89-02C
PBN-89-03B
PBN-89-03C
PBN-89-04B
PBN-89-04C
PBM-89-05
PBM-89-06
PBM-89-07
PBM-89-08
PBM-89-09
PBN-89-10A
PBN-89-10B
PBN-89-10C
PBN-89-10D
PBM-89-11
PBN-89-12A
PBN-89-12B

Landfill 1

LOM-91-01
LOM-91-02
LOM-89-01
LON-89-02A
LON-89-02B
LON-89-03A
LON-89-03B

Settling Ponds and Spoils Disposal Area

SPN-91-02D

SPN-91-03D
SPN-91-04D
SPN-89-01C
SPN-89-02A
SPN-89-02B
SPN-89-02C
SPN-89-03B
SPN-89-03C
SPN-89-04B
SPN-89-04C
SPN-89-05A
SPN-89-05B

Deterrent Burning Ground

DBM-89-01
DBN-89-02A
DBN-89-02B
DBM-89-03
DBN-89-04A
DBN-89-04B
DBM-89-05

Existing Landfill

ELN-91-07A
ELN-91-07B
ELM-91-10
ELM-89-01
ELN-89-02A
ELN-89-02B
ELM-89-03
ELN-89-04A
ELN-89-04B
ELM-89-05
ELN-89-06B
ELM-89-07
ELM-89-08
ELM-89-09

Rocket Paste Area

RPM-91-01
RPM-89-01
RPM-89-02

Nitroglycerine Pond

NPM-89-01

Oleum Plant and Pond

OPM-89-01
OPM-89-02
OPM-89-03

Old Acid Area

OAM-91-01
OAM-89-01
OAM-89-02

Old Fuel Oil Tank

FTM-89-01

Off-Post (South)

PBN-91-01C
PBN-91-02B
PBN-91-02C
PBN-91-03B
PBN-91-03C
PBM-90-01D
PBM-90-02D
PBM-90-03D
PBN-90-04B
PBN-90-04D
SWN-91-01B
SWN-91-01C
SWN-91-01D
SWN-91-02C
SWN-91-02D
SWN-91-03B
SWN-91-03C
SWN-91-03D
SWN-91-03E
SWN-91-04C
SWN-91-04D
SWN-91-05B
SWN-91-05C
SWN-91-05D

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Facility/Project Name BAAP- USATHAMA	Well Name BGM-91-01
License, Permit or Monitoring Number -----	Well Unique Well Number -----
	DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other | <input type="checkbox"/> | <div style="border: 1px solid black; padding: 2px;">5 0</div> |

3. Time spent developing well 65 min.

4. Depth of well (from top of well casing) 13.3 ft.

5. Inside diameter of well 3.75 in.

6. Volume of water in filter pack and well casing 25.3 gal.

7. Volume of water removed from well 136.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Before Development

After Development

24 hr.
later

61.12 ft.

61.17 ft. 61.21

Date

11/09/21
m m d d y y

11/09/21
m m d d y y

Time

14:02 a.m.
p.m.

15:20 a.m.
p.m. 14:25

12. Sediment in well bottom

_____ inches

_____ inches

13. Water clarity

Clear ☐ 10

Clear ☒ 20

Turbid ☒ 15

Turbid ☐ 25

(Describe)

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

16. Screen length

10.0 ft.

17. Pump used was Grundfos Redi-Flow 2 w/ straining cloth

Additional comments on development:

	27	55	82	109	136
T (°C)	-	-	-	-	-
pH (units)	6.8	7.0	6.8	6.8	6.8
cond. (µmhos)	455	453	464	458	478
Time	14:29	14:40	14:51	15:02	15:13

well to casing:
stick-up: 0.14"/2.24" →

initial depth to:
bottom: 73.34/73.35

final depth to:
bottom: 73.28

Well developed by: Person's Name and Firm

Name: D. Dienne / D. BUSHBERGER

Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: D. B. Bushberger

Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BARP-USATHAMA	Well Name BGM-91-02
License, Permit or Monitoring Number _____	Wic. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> _____ |

3. Time spent developing well 40 min.

4. Depth of well (from top of well casing) 85.7 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 17.0 gal.

7. Volume of water removed from well 85.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

Additional comments on development:

	17	34	51	68	85
T (°C)	16.0	7.0	7.0	6.8	6.8
pH (units)	4.05	4.5	4.45	4.85	4.90
cond. (umhos)	16.27	16.34	16.41	16.46	16.55
Time					

11. Depth to Water (from top of well casing)

Before Development

After Development

24 5
10/07

77.22 ft.

77.34 ft. 77.1

Date

11/09/91
m m d d y y

11/09/91 11/10/1
m m d d y y

Time

16:00 a.m.
p.m.

17:00 a.m.
p.m. 14:32

12. Sediment in well bottom

_____ inches

_____ inches

13. Water clarity

Clear ☐ 10
Turbid ☒ 15
(Describe)

Clear ☒ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

16. Screen length

10.0 ft.

17. Pump used was Grundfos Redi-Flo 2 w/ straining cloth

well to casing: 0.15
stick-up: 2.57

0.12
2.3

initial depth to: 85.70
bottom

final depth to: 85.73
bottom

85.68

Well developed by: Person's Name and Firm

Name: D. DIANE / D. JEN BUSHBERGER

Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Dougherty Bushberger

Firm: ABB-ES

Facility/Project Name BAAP- USATHAMA		Well Name BGM-91-03	
License, Permit or Monitoring Number -----		Wis. Unique Well Number: _____ DNR Well Number: _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td></td></tr> </table> <p>3. Time spent developing well <u>65</u> min.</p> <p>4. Depth of well (from top of well casing) <u>101.9</u> ft.</p> <p>5. Inside diameter of well <u>4.00</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>31.0</u> gal.</p> <p>7. Volume of water removed from well <u>155.0</u> gal.</p> <p>8. Volume of water added (if any) <u>0.0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (with surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>		<p>11. Depth to Water (from top of well casing) <u>80.40</u> ft.</p> <p>Date <u>11/10/91</u> m m d d y y</p> <p>Time <u>12:36</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. <u>13:46</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. <u>15:40</u></p> <p>12. Sediment in well bottom _____ inches</p> <p>13. Water clarity Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p> <p>16. Screen length <u>10.0</u> ft.</p> <p>17. Pump used was <u>Grundfos Redi-Flo 2</u> w/ straining cloth</p>
surged with bailer and bailed	<input type="checkbox"/>	4 1																													
surged with bailer and pumped	<input type="checkbox"/>	6 1																													
surged with block and bailed	<input type="checkbox"/>	4 2																													
surged with block and pumped	<input type="checkbox"/>	6 2																													
surged with block, bailed and pumped	<input type="checkbox"/>	7 0																													
compressed air	<input type="checkbox"/>	2 0																													
bailed only	<input type="checkbox"/>	1 0																													
pumped only (with surging)	<input checked="" type="checkbox"/>	5 1																													
pumped slowly	<input type="checkbox"/>	5 0																													
Other	<input type="checkbox"/>																														

Additional comments on development

	31	62	93	124	155
T (°C)	10.3	10.2	10.5	10.3	10.2
pH (units)	7.8	7.8	7.8	7.8	7.8
cond. (µmhos)	593	581	577	576	576
Time	12:37	12:50	13:03	13:16	13:29

well to casing: } 2.40 * well not grouted or cemented yet
stick-up: }
initial depth to: 101.85
bottom
final depth to: 101.85
bottom 101.86

Well developed by: Person's Name and Firm

Name:

DAVID DIAMME / DOUGLAS WUBSHBERGER

Firm:

ABB - ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:

Nancy E. Roper

Firm:

ABB - ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP- USATHAMA	Well Name PBN-91-06C
License, Permit or Monitoring Number -----	Wis. Unique Well Number -----
	DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/> 4 1
surged with bailer and pumped	<input type="checkbox"/> 6 1
surged with block and bailed	<input type="checkbox"/> 4 2
surged with block and pumped	<input type="checkbox"/> 6 2
surged with block, bailed and pumped	<input type="checkbox"/> 7 0
compressed air	<input type="checkbox"/> 2 0
bailed only	<input type="checkbox"/> 1 0
pumped only (with surging)	<input checked="" type="checkbox"/> 5 1
pumped slowly	<input type="checkbox"/> 5 0
Other	<input type="checkbox"/> -----

3. Time spent developing well **654.2** min.

4. Depth of well (from top of well casing) **203.5** ft

5. Inside diameter of well **3.75** in.

6. Volume of water in filter pack and well casing **121.5** gal.

7. Volume of water removed from well **3208.2** gal.

8. Volume of water added (if any) **900.0** gal.

9. Source of water added **BPW #2**

10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	83.10 ft	83.12 ft 24.5 late
Date	11/20/91 m m d d y y	11/21/91 m m d d y y
Time	12:42 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	3:05 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	----- inches	----- inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
14. Total suspended solids	----- mg/l	----- mg/l
15. COD	----- mg/l	----- mg/l
16. Screen length	10.0 ft	

Fill in if drilling fluids were used and well is at solid waste facility:

Additional comments on development:

	11-20	11-20	11-21	11-21
T (°C)	10.3	10.0	9.3	9.5
pH (units)	7.94	7.92	7.39	7.96
cond. (µmhos)	651	640	619	624
Time	4:35 PM	1 PM	11:35 AM	3:05

Well to casing: **1.12**
stick-up: **2.48**
initial depth to bottom: **203.54**
final depth to bottom: **203.56** **203.5**

Well developed by: Person's Name and Firm

Name: **Keith Kohanski/Lance Carter**
Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **Keith Kohanski**
Firm: **ABB-ES**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

START Purge at 1 PM - 11-20-91 3.63 hrs. needed to sample.

stopped purge at 4:35 PM - 11-20-91

Facility/Project Name BAAP- USATHAMA	Well Name PBN-91-06D
License, Permit or Monitoring Number _____	Well Unique Well Number _____
	DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> _____ |

3. Time spent developing well **753** min.

4. Depth of well (from top of well casing) **253.2** ft.

5. Inside diameter of well **4.00** in.

6. Volume of water in filter pack and well casing **138.2** gal.

7. Volume of water removed from well **3691.0** gal.

8. Volume of water added (if any) **1000.0** gal.

9. Source of water added **BPW #2**

10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Date

Time

12. Sediment in well bottom

13. Water clarity

Before Development

After Development

24 hrs later

82.3 ft.

82.35 ft. **82.2**

11/21/91
m m d d y y

11/22/91
m m d d y y

3:30 a.m.
p.m.

4:00 a.m.
p.m. **1500**

_____ inches

_____ inches

Clear ☐ 10

Turbid ☐ 15

(Describe)

Clear ☒ 20

Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

15. COD

16. Screen length

_____ mg/l

_____ mg/l

_____ mg/l

_____ mg/l

10.0 ft.

Additional comments on development:

	11-21	11-22	11-22	11-22
T (°C)	9.6	9.9	9.8	9.5
pH (units)	8.18	7.36	7.74	7.86
cond. (µmhos)	431	680	628	624
Time	3:15 PM	10:45 AM	1:30 PM	4:00 PM

Well to casing: **2.4**

stick-up: **2.4**

initial depth to: **253.77**
bottom

final depth to: **253.77**
bottom

253.75

Well developed by: Person's Name and Firm

Name: **Keith Kohanski**

Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **Keith Kohanski**

Firm: **ABB-ES**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Started to purge at 3:15 PM
Stopped purging at 5:00 PM - 11-21-91
11-22-91

Data collection log 4.16 hrs (1 pump)

Stopped at 4:00 PM 11-22-91
over

Facility/Project Name BAAP - USFTHAMA		Well Name PBN-91-12C	
License, Permit or Monitoring Number -----		Wis. Unique Well Number -----	DNR Well Number -----

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table border="0"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4'1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6'1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4'2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6'2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7'0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2'0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1'0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5'1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5'0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td></td></tr> </table> <p>3. Time spent developing well <u>436</u> min.</p> <p>4. Depth of well (from top of well casing) <u>185.9</u> ft</p> <p>5. Inside diameter of well <u>3.75</u> in</p> <p>6. Volume of water in filter pack and well casing <u>93.5</u> gal</p> <p>7. Volume of water removed from well <u>2077.0</u> gal</p> <p>8. Volume of water added (if any) <u>670.0</u> gal</p> <p>9. Source of water added <u>BAAP PU#2</u></p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4'1	surged with bailer and pumped	<input type="checkbox"/>	6'1	surged with block and bailed	<input type="checkbox"/>	4'2	surged with block and pumped	<input type="checkbox"/>	6'2	surged with block, bailed and pumped	<input type="checkbox"/>	7'0	compressed air	<input type="checkbox"/>	2'0	bailed only	<input type="checkbox"/>	1'0	pumped only (with surging)	<input checked="" type="checkbox"/>	5'1	pumped slowly	<input type="checkbox"/>	5'0	Other	<input type="checkbox"/>		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th></th> <th>Before Development</th> <th>After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>93.0</u> ft</td> <td><u>93.05</u> ft</td> </tr> <tr> <td>Date</td> <td><u>11/19/91</u> m m d d y y</td> <td><u>11/20/91</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>11:55</u> a.m. <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>12:35</u> a.m. <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>----- inches</td> <td>----- inches</td> </tr> <tr> <td>13. Water clarity</td> <td>Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)</td> <td>Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)</td> </tr> <tr> <td>14. Total suspended solids</td> <td>----- mg/l</td> <td>----- mg/l</td> </tr> <tr> <td>15. COD</td> <td>----- mg/l</td> <td>----- mg/l</td> </tr> <tr> <td>16. Screen length</td> <td><u>10.0</u> ft</td> <td></td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>93.0</u> ft	<u>93.05</u> ft	Date	<u>11/19/91</u> m m d d y y	<u>11/20/91</u> m m d d y y	Time	<u>11:55</u> a.m. <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>12:35</u> a.m. <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	----- inches	----- inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe)	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)	14. Total suspended solids	----- mg/l	----- mg/l	15. COD	----- mg/l	----- mg/l	16. Screen length	<u>10.0</u> ft	
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16. Screen length	<u>10.0</u> ft																																																									

Additional comments on development:

	11-19	11-19	11-20	11-20
T (°C)	11.1	10.5	10.2	11.0
pH (units)	7.14	7.16	7.32	7.87
cond. (µmhos)	741	744	658	680
Time	1:35 PM	4:10 PM	12:20 PM	

well to casing: 7.06
stick-up: 2.55
initial depth to: 185.9
bottom
final depth to: 185.87
bottom

Well developed by: Person's Name and Firm

Name: K. Kohnanski / Laura Carter
Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Nancy E. Roka
Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

started pump 1:35 PM (11-19-91) (2) - 1 pump stopped at 2 PM - pump clogged - (1.55 in)
6 pump - 1:35 start (7.06 hr) 11-19 - stopped pump at 4:30 PM
11-20 started pump at 8:30 AM

Facility/Project Name BAP - USATHAMA	Well Name 8 PBN-91-12D
License, Permit or Monitoring Number -----	Wis. Unique Well Number -----
	DNR Well Number -----

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11. Depth to Water (from top of well casing) 93.93 ft	Before Development 93.93 ft	After Development 89.20 ft	24 hrs later 89.3
2. Well development method	Date 11/10/91	11/10/91	11/19/91	11-2/91
surged with bailer and bailed <input type="checkbox"/> 4 1	Time 1:45	1:45	12:30	5:AM
surged with bailer and pumped <input type="checkbox"/> 6 1				
surged with block and bailed <input type="checkbox"/> 4 2				
surged with block and pumped <input type="checkbox"/> 6 2				
surged with block, bailed and pumped <input type="checkbox"/> 7 0				
compressed air <input type="checkbox"/> 2 0				
bailed only <input type="checkbox"/> 1 C				
pumped only (with surging) <input checked="" type="checkbox"/> 5 1				
pumped slowly <input type="checkbox"/> 5 0				
Other <input type="checkbox"/> -----				
3. Time spent developing well 320 min.	12. Sediment in well bottom ----- inches			
4. Depth of well (from top of well casing) 233.3 ft	13. Water clarity	Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20	
5. Inside diameter of well 4.06 in.		Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25	
6. Volume of water in filter pack and well casing 125.5 gal.		(Describe)	(Describe)	
7. Volume of water removed from well 3128.0 gal.				
8. Volume of water added (if any) 835.0 gal.				
9. Source of water added BPW #2				
10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)	14. Total suspended solids ----- mg/l			
	15. COD ----- mg/l			
	16. Screen length 10.0 ft.			

Additional comments on development: **11/10 initial 11/19 final**

T (°C)	11.4	10.4	10.6	10.7
pH (units)	7.48	7.4	10.0	8.40
cond. (µmhos)	617	620	309	258
Time	2:10pm	4:32pm	8:40AM	12:20pm

well to casing: **-0.19**
stick-up: **3.37**
initial depth to: **233.32**
bottom
final depth to: **233.32**
bottom **233.30**

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: M. McGone / K. Kohnst	Signature: Nancy E. Rofa
Firm: ABB-ES	Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

11/11 Start of pumping @ 2:00
11/12 Start @ 8:15 2 pumps
11-12 stopped pump 12:20
The spent pump: 6.4m 10ml

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name PBN-89-010	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

		Before Development	After Development
1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> _____		
3. Time spent developing well	<u>150</u> min.		
4. Depth of well (from top of well casing)	<u>161</u> ft.		
5. Inside diameter of well	<u>4.0</u> in.		
6. Volume of water in filter pack and well casing	<u>49</u> gal.		
7. Volume of water removed from well	<u>245</u> gal.		
8. Volume of water added (if any)	<u>0</u> gal.		
9. Source of water added _____			
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

		Before Development	After Development
11. Depth to Water (from top of well casing)		<u>100.39</u> ft.	<u>100.43</u> ft.
Date		<u>03/07/89</u> m m d d y y	<u>03/08/89</u> m m d d y y
Time		<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom		____ inches	____ inches
13. Water clarity		Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:			
14. Total suspended solids		____ mg/l	____ mg/l
15. COD		____ mg/l	____ mg/l

Additional comments on development:

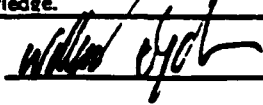
Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name DBN-89-01C	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____		_____	

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well 1892 min. 4. Depth of well (from top of well casing) 202 ft. 5. Inside diameter of well 4.1 in. 6. Volume of water in filter pack and well casing 78.7 gal. 7. Volume of water removed from well 9460 gal. 8. Volume of water added (if any) 3000 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>106.0 ft.</td> <td>107.09 ft.</td> </tr> <tr> <td>Date</td> <td>04/26/89 m m d d y y</td> <td>10/25/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>14:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	106.0 ft.	107.09 ft.	Date	04/26/89 m m d d y y	10/25/89 m m d d y y	Time	14:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: R. DAVID DINGMORE Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature:  Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name DAGER ARMY AMUNITION PLANT		Well Name PBN-59-010	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
		DNR Well Number _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td style="width:30%;">surged with bailer and bailed</td> <td style="width:10%;"><input type="checkbox"/></td> <td style="width:10%;">4</td> <td style="width:10%;">1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/></td> <td>6</td> <td>1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/></td> <td>4</td> <td>2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/></td> <td>6</td> <td>2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/></td> <td>7</td> <td>0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/></td> <td>2</td> <td>0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/></td> <td>1</td> <td>0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/></td> <td>5</td> <td>1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/></td> <td>5</td> <td>0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/></td> <td colspan="2"></td> </tr> </table> <p>3. Time spent developing well <u>120</u> min.</p> <p>4. Depth of well (from top of well casing) <u>239</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>107</u> gal.</p> <p>7. Volume of water removed from well <u>535</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4	1	surged with bailer and pumped	<input type="checkbox"/>	6	1	surged with block and bailed	<input type="checkbox"/>	4	2	surged with block and pumped	<input type="checkbox"/>	6	2	surged with block, bailed and pumped	<input type="checkbox"/>	7	0	compressed air	<input type="checkbox"/>	2	0	bailed only	<input type="checkbox"/>	1	0	pumped only	<input checked="" type="checkbox"/>	5	1	pumped slowly	<input type="checkbox"/>	5	0	Other _____	<input type="checkbox"/>			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>102.14</u> ft.</td> <td><u>102.15</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/16/89</u> m m d d y y</td> <td><u>03/17/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>9:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>10:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>102.14</u> ft.	<u>102.15</u> ft.	Date	<u>03/16/89</u> m m d d y y	<u>03/17/89</u> m m d d y y	Time	<u>9:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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15. COD	_____ mg/l	_____ mg/l																																																																		

Additional comments on development:

Well developed by: Person's Name and Firm

Name: R. DAVID DINSMORE

Firm: C E ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: William D. Galt

Firm: C E ENVIRONMENTAL

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Agency/Project Name BADGER ARMY AMMUNITION PLANT		Well Name PBN-81-02B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

		Before Development	After Development
1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> _____		
3. Time spent developing well	<u>75</u> min.		
4. Depth of well (from top of well casing)	<u>160</u> ft		
5. Inside diameter of well	<u>4.0</u> in.		
6. Volume of water in filter pack and well casing	<u>31</u> gal.		
7. Volume of water removed from well	<u>155</u> gal.		
8. Volume of water added (if any)	<u>0</u> gal.		
9. Source of water added	_____		
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Additional comments on development:			

		Before Development	After Development
11. Depth to Water (from top of well casing)		<u>129.23</u> ft.	<u>129.23</u> ft.
Date		<u>04/20/89</u> m m d d y y	<u>04/21/89</u> m m d d y y
Time		<u>9:45</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom		_____ inches	_____ inches
13. Water clarity		Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:			
14. Total suspended solids		_____ mg/l	_____ mg/l
15. COD		_____ mg/l	_____ mg/l

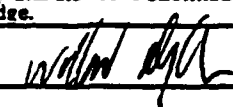
Well developed by: Person's Name and Firm Name: <u>P. DAVID DIMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William J. J.</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name PRN-89-02C	
License, Permit or Monitoring Number -----		Wis. Unique Well Number -----	DNR Well Number -----

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other <input type="checkbox"/> _____ 3. Time spent developing well <u>120</u> min. 4. Depth of well (from top of well casing) <u>195</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>55</u> gal. 7. Volume of water removed from well <u>375</u> gal. 8. Volume of water added (if any) <u>0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>125.71</u> ft.</td> <td><u>125.80</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>04/20/89</u> m m d d y y</td> <td><u>04/21/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>white cloudy color</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) </td> </tr> </table> Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l 15. COD _____ mg/l		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>125.71</u> ft.	<u>125.80</u> ft.	Date	<u>04/20/89</u> m m d d y y	<u>04/21/89</u> m m d d y y	Time	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>white cloudy color</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
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13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>white cloudy color</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)																	

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINGMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u></u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name DBN-89-03B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td>surged with bailer and bailed</td> <td><input type="checkbox"/> 4 1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/> 6 1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/> 4 2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/> 6 2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/> 7 0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/> 2 0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/> 1 0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/> 5 1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/> 5 0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/> _____</td> </tr> </table> <p>3. Time spent developing well <u>150</u> min.</p> <p>4. Depth of well (from top of well casing) <u>125</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>40</u> gal.</p> <p>7. Volume of water removed from well <u>300</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th></th> <th>Before Development</th> <th>After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>75.93</u> ft.</td> <td><u>78.00</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/16/89</u> m m d d y y</td> <td><u>03/17/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>12:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>75.93</u> ft.	<u>78.00</u> ft.	Date	<u>03/16/89</u> m m d d y y	<u>03/17/89</u> m m d d y y	Time	<u>12:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
surged with bailer and bailed	<input type="checkbox"/> 4 1																																															
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bailed only	<input type="checkbox"/> 1 0																																															
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. D. DINSMORE</u> Firm: <u>C. E. ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C. E. ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT	Well Name PBN-87-03C
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-------|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | _____ |

3. Time spent developing well 1418 min.

4. Depth of well (from top of well casing) 162 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 95 gal.

7. Volume of water removed from well 8475 gal.

8. Volume of water added (if any) 2400 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

Additional comments on development:

11. Depth to Water
(from top of
well casing)

Date

Time

12. Sediment in well
bottom

13. Water clarity

Before Development After Development

74.83 ft.

74.87 ft.

04/22/89
m m d d y y

04/23/89
m m d d y y

9:35 a.m.
p.m.

10:00 a.m.
p.m.

_____ inches

_____ inches

Clear ☒ 10

Turbid ☐ 15

(Describe)

Clear ☐ 20

Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended
solids

15. COD

_____ mg/l

_____ mg/l

Well developed by: Person's Name and Firm

Name: R. DAVID DINGMORE

Firm: C E ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Firm: C E ENVIRONMENTAL

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Activity/Project Name BADGER ARMY AMUNITION PLANT		Well Name PBW-89-04B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well _____ min. 4. Depth of well (from top of well casing) 146 ft 5. Inside diameter of well 4.0 in. 6. Volume of water in filter pack and well casing 54 gal. 7. Volume of water removed from well 2170 gal. 8. Volume of water added (if any) 300 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>89.40 ft</td> <td>89.4 ft</td> </tr> <tr> <td>Date</td> <td>04/22/89 m m d d y y</td> <td>04/25/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>13:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>13:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) Dr. Brown </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> </table> Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l 15. COD _____ mg/l		Before Development	After Development	11. Depth to Water (from top of well casing)	89.40 ft	89.4 ft	Date	04/22/89 m m d d y y	04/25/89 m m d d y y	Time	13:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	13:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) Dr. Brown	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
	Before Development	After Development																	
11. Depth to Water (from top of well casing)	89.40 ft	89.4 ft																	
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13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) Dr. Brown	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____																	

Additional comments on development:

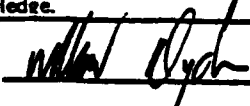
Well developed by: Person's Name and Firm Name: R. DAVID DINEMORE Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: [Signature] Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name PBN-89-04C	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 3 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well 1570 min. 4. Depth of well (from top of well casing) 158 ft. 5. Inside diameter of well 4.0 in. 6. Volume of water in filter pack and well casing 86 gal. 7. Volume of water removed from well 1425 gal. 8. Volume of water added (if any) 3000 gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>92.20 ft.</td> <td>91.96 ft.</td> </tr> <tr> <td>Date</td> <td>04/23/89 m m d d y y</td> <td>04/26/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td>10:15 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>11:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	92.20 ft.	91.96 ft.	Date	04/23/89 m m d d y y	04/26/89 m m d d y y	Time	10:15 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	11:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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15. COD	_____ mg/l	_____ mg/l																										

Additional comments on development:

Well developed by: Person's Name and Firm Name: R. DAVID DINGMORE Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature:  Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name SADGER ARMY AMUNITION PLANT		Well Name PBM - 87-05	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

		Before Development	After Development
1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> _____		
3. Time spent developing well	<u>420</u> min.		
4. Depth of well (from top of well casing)	<u>98</u> ft.		
5. Inside diameter of well	<u>4.0</u> in.		
6. Volume of water in filter pack and well casing	<u>36</u> gal.		
7. Volume of water removed from well	<u>3180.0</u> gal.		
8. Volume of water added (if any) * <u>1000.0</u> gal.			
9. Source of water added _____			
10. Analysis performed on water added? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)			

		Before Development	After Development
11. Depth to Water (from top of well casing)		<u>83.79</u> ft.	<u>83.80</u> ft.
Date		<u>04/31/89</u> m m d d y y	<u>04/23/89</u> m m d d y y
Time		<u>12:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>12:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom		_____ inches	_____ inches
13. Water clarity		Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
Fill in if drilling fluids were used and well is at solid waste facility:			
14. Total suspended solids		_____ mg/l	_____ mg/l
15. COD		_____ mg/l	_____ mg/l

Additional comments on development:

* only multiplied by 3 in the volume calculation instead of 5.

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINEORE</u> Firm: <u>CE ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>CE ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name PBM-89-06	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
		DNR well Number _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td style="width:30%;">surged with bailer and bailed</td> <td style="width:10%;"><input type="checkbox"/></td> <td style="width:10%;">4</td> <td style="width:10%;">1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/></td> <td>6</td> <td>1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/></td> <td>4</td> <td>2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/></td> <td>6</td> <td>2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/></td> <td>7</td> <td>0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/></td> <td>2</td> <td>0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/></td> <td>1</td> <td>0</td> </tr> <tr> <td>pumped only</td> <td><input type="checkbox"/></td> <td>5</td> <td>1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/></td> <td>5</td> <td>0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/></td> <td colspan="2"></td> </tr> </table> <p>3. Time spent developing well _____ min.</p> <p>4. Depth of well (from top of well casing) _____ ft.</p> <p>5. Inside diameter of well _____ in.</p> <p>6. Volume of water in filter pack and well casing _____ gal.</p> <p>7. Volume of water removed from well _____ gal.</p> <p>8. Volume of water added (if any) _____ gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4	1	surged with bailer and pumped	<input type="checkbox"/>	6	1	surged with block and bailed	<input type="checkbox"/>	4	2	surged with block and pumped	<input type="checkbox"/>	6	2	surged with block, bailed and pumped	<input type="checkbox"/>	7	0	compressed air	<input type="checkbox"/>	2	0	bailed only	<input type="checkbox"/>	1	0	pumped only	<input type="checkbox"/>	5	1	pumped slowly	<input type="checkbox"/>	5	0	Other _____	<input type="checkbox"/>			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>_____ ft.</td> <td>_____ ft.</td> </tr> <tr> <td>Date</td> <td>____/____/____ m m d d y y</td> <td>____/____/____ m m d d y y</td> </tr> <tr> <td>Time</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	_____ ft.	_____ ft.	Date	____/____/____ m m d d y y	____/____/____ m m d d y y	Time	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

WELL NOT DEVELOPED DUE TO LACK OF WATER

Well developed by: Person's Name and Firm Name: R. DAVID DINEMORE Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: _____ Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Locality/Project Name BADGER ARMY AMMUNITION PLANT		Well Name PBM-89-07	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
		DNR Well Number _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td style="width:30%;">surged with bailer and bailed</td> <td style="width:10%;"><input type="checkbox"/></td> <td style="width:10%;">4</td> <td style="width:10%;">1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/></td> <td>6</td> <td>1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/></td> <td>4</td> <td>2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/></td> <td>6</td> <td>2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/></td> <td>7</td> <td>0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/></td> <td>2</td> <td>0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/></td> <td>1</td> <td>0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/></td> <td>5</td> <td>1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/></td> <td>5</td> <td>0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/></td> <td colspan="2"></td> </tr> </table> <p>3. Time spent developing well _____ 60 min.</p> <p>4. Depth of well (from top of well casing) _____ 91 ft.</p> <p>5. Inside diameter of well _____ 40 in.</p> <p>6. Volume of water in filter pack and well casing _____ 31 gal.</p> <p>7. Volume of water removed from well _____ 155 gal.</p> <p>8. Volume of water added (if any) _____ 0 gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4	1	surged with bailer and pumped	<input type="checkbox"/>	6	1	surged with block and bailed	<input type="checkbox"/>	4	2	surged with block and pumped	<input type="checkbox"/>	6	2	surged with block, bailed and pumped	<input type="checkbox"/>	7	0	compressed air	<input type="checkbox"/>	2	0	bailed only	<input type="checkbox"/>	1	0	pumped only	<input checked="" type="checkbox"/>	5	1	pumped slowly	<input type="checkbox"/>	5	0	Other _____	<input type="checkbox"/>			<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td style="text-align: center;">_____ 79.75 ft.</td> <td style="text-align: center;">_____ 79.65 ft.</td> </tr> <tr> <td>Date</td> <td style="text-align: center;">03/21/89 m m d d y y</td> <td style="text-align: center;">03/21/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td style="text-align: center;">11:00 <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td style="text-align: center;">11:00 <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td style="text-align: center;">_____ inches</td> <td style="text-align: center;">_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p>		Before Development	After Development	11. Depth to Water (from top of well casing)	_____ 79.75 ft.	_____ 79.65 ft.	Date	03/21/89 m m d d y y	03/21/89 m m d d y y	Time	11:00 <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	11:00 <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
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Additional comments on development:

Well developed by: Person's Name and Firm Name: R. DAVID DINSMORE Firm: C. E. ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: William Klych Firm: C. E. ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name PBM-21-08	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td style="width:30%;">surged with bailer and bailed</td> <td><input type="checkbox"/></td> <td>4 1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/></td> <td>6 1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/></td> <td>4 2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/></td> <td>6 2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/></td> <td>7 0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/></td> <td>2 0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/></td> <td>1 0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/></td> <td>5 1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/></td> <td>5 0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/></td> <td><div style="border: 1px solid black; width: 40px; height: 15px; display: inline-block;"></div></td> </tr> </table> <p>3. Time spent developing well <u>615</u> min.</p> <p>4. Depth of well (from top of well casing) <u>127</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>28</u> gal.</p> <p>7. Volume of water removed from well <u>6165</u> gal.</p> <p>8. Volume of water added (if any) <u>3000</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other _____	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px; display: inline-block;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>119.00</u> ft.</td> <td><u>122.57</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>04/26/89</u> m m d d y y</td> <td><u>12/13/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>10:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>119.00</u> ft.	<u>122.57</u> ft.	Date	<u>04/26/89</u> m m d d y y	<u>12/13/89</u> m m d d y y	Time	<u>10:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DIMSHORE</u> Firm: <u>C. E. ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William Dick</u> Firm: <u>C. E. ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name RADGER ARMY AMUNITION PLANT		Well Name ELM-89-01	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td>surged with bailer and bailed</td> <td><input type="checkbox"/> 4 1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/> 6 1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/> 4 2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/> 6 2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/> 7 0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/> 2 0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/> 1 0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/> 5 1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/> 5 0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/> _____</td> </tr> </table> <p>3. Time spent developing well <u>1 6 5</u> min.</p> <p>4. Depth of well (from top of well casing) <u>1 8 2 . 1</u> ft.</p> <p>5. Inside diameter of well <u>4 . 0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>4 9 . 0</u> gal.</p> <p>7. Volume of water removed from well <u>2 4 5 .</u> gal.</p> <p>8. Volume of water added (if any) <u>0 . 0</u> gal.</p> <p>9. Source of water added <u>NA</u></p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>1 4 2 . 4 7</u> ft.</td> <td><u>1 4 2 . 4 3</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>0 3 / 0 1 / 8 9</u> m m d d y y</td> <td><u>0 3 / 0 2 / 8 9</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>1 0 : 0 0</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>1 2 : 0 0</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____. inches</td> <td>_____. inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 1 0 Turbid <input type="checkbox"/> 1 5 (Describe) _____ _____ _____ _____ _____ </td> <td> Clear <input type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe) _____ _____ _____ _____ _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>1 4 2 . 4 7</u> ft.	<u>1 4 2 . 4 3</u> ft.	Date	<u>0 3 / 0 1 / 8 9</u> m m d d y y	<u>0 3 / 0 2 / 8 9</u> m m d d y y	Time	<u>1 0 : 0 0</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>1 2 : 0 0</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____. inches	_____. inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 1 0 Turbid <input type="checkbox"/> 1 5 (Describe) _____ _____ _____ _____ _____	Clear <input type="checkbox"/> 2 0 Turbid <input type="checkbox"/> 2 5 (Describe) _____ _____ _____ _____ _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>B. DAVID DIBMORE</u> Firm: <u>C.E. ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William Dyer</u> Firm: <u>CE ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAGER ARMY AMMUNITION PLANT		Well Name ELN-89-02A	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other <input type="checkbox"/> 3. Time spent developing well <u>60</u> min. 4. Depth of well (from top of well casing) <u>146</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>26</u> gal. 7. Volume of water removed from well <u>0.0</u> gal. 8. Volume of water added (if any) <u>0.0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>140.74</u> ft.</td> <td><u>142.72</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/04/89</u> m m d d y y</td> <td><u>10/25/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>___:___ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>___ inches</td> <td>___ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>___ mg/l</td> <td>___ mg/l</td> </tr> <tr> <td>15. COD</td> <td>___ mg/l</td> <td>___ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>140.74</u> ft.	<u>142.72</u> ft.	Date	<u>03/04/89</u> m m d d y y	<u>10/25/89</u> m m d d y y	Time	<u>13:00</u> <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	___:___ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	___ inches	___ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	___ mg/l	___ mg/l	15. COD	___ mg/l	___ mg/l
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15. COD	___ mg/l	___ mg/l																										

Additional comments on development:

NO WATER PUMPED FROM WELL. PUMP INTAKE HIGHER THAN WATER LEVEL

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>C. E. ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C. E. ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Agency/Project Name RADGER ARMY AMMUNITION PLANT		Well Name ELN-89-02B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____ DNR Well Number _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well _____ 30 min.</p> <p>4. Depth of well (from top of well casing) _____ 179 ft.</p> <p>5. Inside diameter of well _____ 4.0 in.</p> <p>6. Volume of water in filter pack and well casing _____ 37 gal.</p> <p>7. Volume of water removed from well _____ 185 gal.</p> <p>8. Volume of water added (if any) _____ 0 gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other _____	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td style="text-align: center;">141.88 ft.</td> <td style="text-align: center;">143.41 ft.</td> </tr> <tr> <td>Date</td> <td style="text-align: center;">05/02/89 m m d d y y</td> <td style="text-align: center;">10/25/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td style="text-align: center;">8:30 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td style="text-align: center;">____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td style="text-align: center;">_____ inches</td> <td style="text-align: center;">_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____ </td> </tr> </tbody> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p>		Before Development	After Development	11. Depth to Water (from top of well casing)	141.88 ft.	143.41 ft.	Date	05/02/89 m m d d y y	10/25/89 m m d d y y	Time	8:30 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____
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Additional comments on development: _____

Well developed by: Person's Name and Firm Name: _____ Firm: C E ENVIRONMENTAL	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: W. J. [Signature] Firm: C E ENVIRONMENTAL
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name ELM-89-03	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well _____ 8 0 min. 4. Depth of well (from top of well casing) <u>151.1</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>34</u> gal. 7. Volume of water removed from well <u>180</u> gal. 8. Volume of water added (if any) _____ gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>137.24</u> ft.</td> <td><u>137.18</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>03/04/89</u> m m d d y y</td> <td><u>03/05/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>15:10</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>137.24</u> ft.	<u>137.18</u> ft.	Date	<u>03/04/89</u> m m d d y y	<u>03/05/89</u> m m d d y y	Time	<u>15:10</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>R. DAVID DINSMORE</u> Firm: <u>C-E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C-E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name ELN-89-04A	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

		Before Development	After Development
1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input checked="" type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> 		
3. Time spent developing well	_ 480 min.		
4. Depth of well (from top of well casing)	_ 165 ft.		
5. Inside diameter of well	_ 4.0 in.		
6. Volume of water in filter pack and well casing	_ 36 gal.		
7. Volume of water removed from well	_ 1680 gal.		
8. Volume of water added (if any)	_ 300 gal.		
9. Source of water added	_____		
10. Analysis performed on water added? (If yes, attach results)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

		Before Development	After Development
11. Depth to Water (from top of well casing)		_ 147.34 ft.	_ 147.97 ft.
Date		_ 04/28/89 m m d d y y	_ 10/25/89 m m d d y y
Time		_ 14:30 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	_ : _ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom		_ . _ inches	_ . _ inches
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Fill in if drilling fluids were used and well is at solid waste facility:			
14. Total suspended solids		_ . _ mg/l	_ . _ mg/l
15. COD		_ . _ mg/l	_ . _ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>GEOFF KNIGHT</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u><i>William Knight</i></u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name ELN-89-04B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 3 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well <u>45</u> min. 4. Depth of well (from top of well casing) <u>199</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>44</u> gal. 7. Volume of water removed from well <u>220</u> gal. 8. Volume of water added (if any) <u>0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>148.63</u> ft.</td> <td><u>149.19</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>04/28/89</u> m m d d y y</td> <td><u>10/25/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>11:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>148.63</u> ft.	<u>149.19</u> ft.	Date	<u>04/28/89</u> m m d d y y	<u>10/25/89</u> m m d d y y	Time	<u>11:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>VICKI MILLER</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name ELM-89-05			
License, Permit or Monitoring Number _____		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"> Wis. Unique Well Number _____ </td> <td style="width: 50%;"> DNR Well Number _____ </td> </tr> </table>		Wis. Unique Well Number _____	DNR Well Number _____
Wis. Unique Well Number _____	DNR Well Number _____				

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width: 100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well ___ 60 min.</p> <p>4. Depth of well (from top of well casing) ___ 128 . ft.</p> <p>5. Inside diameter of well ___ 4.0 in.</p> <p>6. Volume of water in filter pack and well casing ___ 27 . gal.</p> <p>7. Volume of water removed from well ___ 135 . gal.</p> <p>8. Volume of water added (if any) ___ 0 . gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 30%;"></th> <th style="width: 35%;">Before Development</th> <th style="width: 35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td style="text-align: center;">___ 121.18 ft.</td> <td style="text-align: center;">___ 121.0 ft.</td> </tr> <tr> <td>Date</td> <td style="text-align: center;">03/01/89 m m d d y y</td> <td style="text-align: center;">03/02/89 m m d d y y</td> </tr> <tr> <td>Time</td> <td style="text-align: center;">___ 14:15 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td style="text-align: center;">___ 15:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td style="text-align: center;">___ . ___ inches</td> <td style="text-align: center;">___ . ___ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____ </td> </tr> <tr> <td colspan="3" style="text-align: center;">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td style="text-align: center;">___ . ___ mg/l</td> <td style="text-align: center;">___ . ___ mg/l</td> </tr> <tr> <td>15. COD</td> <td style="text-align: center;">___ . ___ mg/l</td> <td style="text-align: center;">___ . ___ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	___ 121.18 ft.	___ 121.0 ft.	Date	03/01/89 m m d d y y	03/02/89 m m d d y y	Time	___ 14:15 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	___ 15:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	___ . ___ inches	___ . ___ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	___ . ___ mg/l	___ . ___ mg/l	15. COD	___ . ___ mg/l	___ . ___ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>R DAVID DINGDRE</u>	Signature: <u>William Dyer</u>
Firm: <u>CE ENVIRONMENTAL</u>	Firm: <u>CE ENVIRONMENTAL</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name ELN-87-06B	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
		DNR Well Number _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>287</u> min.</p> <p>4. Depth of well (from top of well casing) <u>183</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>45</u> gal.</p> <p>7. Volume of water removed from well <u>1735</u> gal.</p> <p>8. Volume of water added (if any) <u>300</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>129.59</u> ft.</td> <td><u>129.48</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>05/03/89</u> m m d d y y</td> <td><u>05/04/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>129.59</u> ft.	<u>129.48</u> ft.	Date	<u>05/03/89</u> m m d d y y	<u>05/04/89</u> m m d d y y	Time	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: _____ Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u><i>[Signature]</i></u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name ELM-89-07	
License, Permit or Monitoring Number _____		Div. Unique Well Number _____	
DNR Well Number _____			

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width: 100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>480</u> min.</p> <p>4. Depth of well (from top of well casing) <u>153</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>36</u> gal.</p> <p>7. Volume of water removed from well <u>2680</u> gal.</p> <p>8. Volume of water added (if any) <u>500</u> gal.</p> <p>9. Source of water added _____</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other _____	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<p>11. Depth to Water (from top of well casing)</p> <p style="text-align: center;">Before Development After Development</p> <p style="text-align: center;"><u>138.11</u> ft. <u>138.67</u> ft.</p> <p> </p> <p style="text-align: center;">Date <u>04/30/89</u></p> <p style="text-align: center;">Time <u>2:20</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</p> <p>12. Sediment in well bottom</p> <p style="text-align: center;">_____ inches _____ inches</p> <p>13. Water clarity</p> <table style="width: 100%;"> <tr> <td>Clear <input type="checkbox"/> 10</td> <td>Clear <input type="checkbox"/> 20</td> </tr> <tr> <td>Turbid <input type="checkbox"/> 15</td> <td>Turbid <input type="checkbox"/> 25</td> </tr> <tr> <td>(Describe)</td> <td>(Describe)</td> </tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p>	Clear <input type="checkbox"/> 10	Clear <input type="checkbox"/> 20	Turbid <input type="checkbox"/> 15	Turbid <input type="checkbox"/> 25	(Describe)	(Describe)	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
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<p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>(If yes, attach results)</p>	
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Additional comments on development:

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>VICKI MILLER</u>	Signature: <u><i>Vicki Miller</i></u>
Firm: <u>C. E. ENVIRONMENTAL</u>	Firm: <u>C. E. ENVIRONMENTAL</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name ELM-71-08	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well <u>140</u> min.</p> <p>4. Depth of well (from top of well casing) <u>147</u> ft</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>41</u> gal.</p> <p>7. Volume of water removed from well <u>205</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>126.93</u> ft</td> <td><u>127.05</u> ft</td> </tr> <tr> <td>Date</td> <td><u>04/25/89</u> m m d d y y</td> <td><u>04/26/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Brown color</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:30%;">14. Total suspended solids</td> <td style="width:35%;">_____ mg/l</td> <td style="width:35%;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>126.93</u> ft	<u>127.05</u> ft	Date	<u>04/25/89</u> m m d d y y	<u>04/26/89</u> m m d d y y	Time	<u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Brown color</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development: _____

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>R. DAVID DINGMORE</u>	Signature: <u>[Signature]</u>
Firm: <u>C E ENVIRONMENTAL</u>	Firm: <u>C E ENVIRONMENTAL</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name
BADGER ARMY AMUNITION PLANT

Well Name
ELN-89-09

License, Permit or Monitoring Number

Wis. Unique Well Number

DNR Well Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☐ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only ☒ 5 1
pumped slowly ☐ 5 0
Other ☐

3. Time spent developing well **231** min.

4. Depth of well (from top of well casing) **156** ft.

5. Inside diameter of well **4.0** in.

6. Volume of water in filter pack and well casing **28** gal.

7. Volume of water removed from well **1390** gal.

8. Volume of water added (if any) **250** gal.

9. Source of water added

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Before Development

After Development

140.16 ft.

140.20 ft.

Date

04/29/89
m m d d y y

04/30/90
m m d d y y

Time

☐ a.m.
-- : -- ☐ p.m.

☐ a.m.
-- : -- ☐ p.m.

12. Sediment in well bottom

-- . -- inches

-- . -- inches

13. Water clarity

Clear ☐ 10
Turbid ☒ 15
(Describe)

Clear ☐ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

----- mg/l

----- mg/l

15. COD

----- mg/l

----- mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Name: **Vicki Miller**

Firm: **C E ENVIRONMENTAL**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **William J. Miller**

Firm: **C E ENVIRONMENTAL**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>BANK</u>		Well Name <u>RPM-91-01</u>	
License, Permit or Monitoring Number -----		Wic. Unique Well Number -----	DNR Well Number -----

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table border="0"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 50px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>20</u> min.</p> <p>4. Depth of well (from top of well casing) <u>108.1</u> ft.</p> <p>5. Inside diameter of well <u>4.00</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>13.2</u> gal.</p> <p>7. Volume of water removed from well <u>65.0</u> gal.</p> <p>8. Volume of water added (if any) <u>0.0</u> gal.</p> <p>9. Source of water added <u>N/A</u></p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (with surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 50px; height: 15px;"></div>	<p>11. Depth to Water (from top of well casing)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Before Development</th> <th>After Development</th> </tr> </thead> <tbody> <tr> <td><u>108.11</u> ft.</td> <td><u>108.10</u> ft. 24 s. lat.</td> </tr> <tr> <td>Date <u>11/10/91</u> m m d d y y</td> <td><u>11/10/91</u> m m d d y y</td> </tr> <tr> <td>Time <u>15:26</u> <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>10:00</u> <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> </tbody> </table> <p>12. Sediment in well bottom <u>108.1</u> inches</p> <p>13. Water clarity</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Before Development</th> <th>After Development</th> </tr> </thead> <tbody> <tr> <td>Clear <input type="checkbox"/> 10</td> <td>Clear <input checked="" type="checkbox"/> 20</td> </tr> <tr> <td>Turbid <input checked="" type="checkbox"/> 15</td> <td>Turbid <input type="checkbox"/> 25</td> </tr> <tr> <td>(Describe)</td> <td>(Describe)</td> </tr> <tr> <td></td> <td><u>slightly cloudy</u></td> </tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> </tbody> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids <u> </u> mg/l</p> <p>15. COD <u> </u> mg/l</p> <p>16. Screen length <u>10.0</u> ft.</p> <p>17. Pump used was Grundfos Redi-Flow 2 w/ <u>straining cloth</u></p>	Before Development	After Development	<u>108.11</u> ft.	<u>108.10</u> ft. 24 s. lat.	Date <u>11/10/91</u> m m d d y y	<u>11/10/91</u> m m d d y y	Time <u>15:26</u> <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>10:00</u> <input checked="" type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	Before Development	After Development	Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20	Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25	(Describe)	(Describe)		<u>slightly cloudy</u>								
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Additional comments on development

T (°C)	<u>63</u>	<u>64</u>	<u>67</u>	<u>62</u>	<u>65</u>
pH (units)	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>	<u>7.7</u>
cond. (µmhos)	<u>608</u>	<u>614</u>	<u>613</u>	<u>580</u>	<u>607</u>

NO CONCRETE WALLAR OR STONE

well to casing: -.19

stick-up: 2.5±

initial depth to bottom: 108.1

final depth to bottom: 108.2

108.2

Well developed by: Person's Name and Firm

Name: D. Dionne/ D. Von BushbergerFirm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: D. F. M. Shrop / Nancy E. RorFirm: ABB-ES

City/Project Name BADGER ARMY AMMUNITION PLANT		Well Name RPM-89-01	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input checked="" type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well <u>150</u> min.</p> <p>4. Depth of well (from top of well casing) <u>127</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>16</u> gal.</p> <p>7. Volume of water removed from well <u>11.5</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input checked="" type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>112.54</u> ft.</td> <td>_____ ft.</td> </tr> <tr> <td>Date</td> <td><u>11/05/89</u> m m d d y y</td> <td>____/____/____ m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>12:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____ </td> </tr> </tbody> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table style="width:100%;"> <tr> <td style="width:30%;">14. Total suspended solids</td> <td style="width:35%;">_____ mg/l</td> <td style="width:35%;">_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>112.54</u> ft.	_____ ft.	Date	<u>11/05/89</u> m m d d y y	____/____/____ m m d d y y	Time	<u>12:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ _____ _____ _____ _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm

Name: DAVID B. DODGE

Firm: C.E. ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: William J. [Signature]

Firm: C.E. ENVIRONMENTAL

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name RADGET ARMY AMMUNITION PLANT		Well Name RPM-89-07	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____
<div>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</div> <div>2. Well development method</div> <div><div><input type="checkbox"/> surged with bailer and bailed</div><div><input type="checkbox"/> surged with bailer and pumped</div><div><input type="checkbox"/> surged with block and bailed</div><div><input type="checkbox"/> surged with block and pumped</div><div><input type="checkbox"/> surged with block, bailed and pumped</div><div><input type="checkbox"/> compressed air</div><div><input type="checkbox"/> bailed only</div><div><input type="checkbox"/> pumped only</div><div><input type="checkbox"/> pumped slowly</div><div><input type="checkbox"/> Other _____</div></div> <div><div>4 1</div><div>6 1</div><div>4 2</div><div>6 2</div><div>7 0</div><div>2 0</div><div>1 0</div><div>5 1</div><div>5 0</div><div><div></div></div></div>			

3. Time spent developing well
 10 min.4. Depth of well (from top of well casing)
 111.8 ft.5. Inside diameter of well
 4.0 in.6. Volume of water in filter pack and well casing
 34 gal.7. Volume of water removed from well
 170 gal.8. Volume of water added (if any)
 0 gal.9. Source of water added
 _____10. Analysis performed on water added? ☐ Yes ☒ No
 (If yes, attach results)

Additional comments on development:

Well developed by: Person's Name and Firm		I hereby certify that the above information is true and correct to the best of my knowledge.	
Name:	<u>Willard Dyche</u>	Signature:	<u>Willard Dyche</u>
Firm:	<u>CE ENVIRONMENTAL</u>	Firm:	<u>CE ENVIRONMENTAL</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name NPM-89-01	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
		DNR Well Number _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td style="width:30%;">surged with bailer and bailed</td> <td><input type="checkbox"/> 4 1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/> 6 1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/> 4 2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input type="checkbox"/> 6 2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/> 7 0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/> 2 0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/> 1 0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/> 5 1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/> 5 0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/> _____</td> </tr> </table> <p>3. Time spent developing well <u>150</u> min.</p> <p>4. Depth of well (from top of well casing) <u>99</u> ft</p> <p>5. Inside diameter of well <u>4.2</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>43</u> gal.</p> <p>7. Volume of water removed from well <u>215</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>85.33</u> ft</td> <td><u>85.35</u> ft</td> </tr> <tr> <td>Date</td> <td><u>11/19/89</u> m m d d y y</td> <td><u>11/20/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>8:30</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>10:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>85.33</u> ft	<u>85.35</u> ft	Date	<u>11/19/89</u> m m d d y y	<u>11/20/89</u> m m d d y y	Time	<u>8:30</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>Willard Dyche</u>	Signature: <u>Willard Dyche</u>
Firm: <u>CE ENVIRONMENTAL</u>	Firm: <u>CE ENVIRONMENTAL</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>BADGER ARMY AMMUNITION PLANT</u>		Well Name <u>CPM-8901</u>	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	
DNR Well Number _____			

		Before Development	After Development
1. Can this well be purged dry?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
2. Well development method			
surged with bailer and bailed	<input type="checkbox"/> 4 1		
surged with bailer and pumped	<input type="checkbox"/> 6 1		
surged with block and bailed	<input type="checkbox"/> 4 2		
surged with block and pumped	<input checked="" type="checkbox"/> 6 2		
surged with block, bailed and pumped	<input type="checkbox"/> 7 0		
compressed air	<input type="checkbox"/> 2 0		
bailed only	<input type="checkbox"/> 1 0		
pumped only	<input type="checkbox"/> 5 1		
pumped slowly	<input type="checkbox"/> 5 0		
Other _____	<input type="checkbox"/> _____		
3. Time spent developing well	<u>400</u> min.		
4. Depth of well (from top of well casing)	<u>86.5</u> ft.		
5. Inside diameter of well	<u>4.0</u> in.		
6. Volume of water in filter pack and well casing	<u>32</u> gal.		
7. Volume of water removed from well	<u>190</u> gal.		
8. Volume of water added (if any)	<u>0</u> gal.		
9. Source of water added	_____		
10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)			

		Before Development	After Development
11. Depth to Water (from top of well casing)		<u>65.6</u> ft.	<u>66.02</u> ft.
Date		<u>11/19/89</u> m m d d y y	<u>12/08/89</u> m m d d y y
Time		<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>15:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom		_____ inches	_____ inches
13. Water clarity		Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>GRANULAR color</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
Fill in if drilling fluids were used and well is at solid waste facility:			
14. Total suspended solids		_____ mg/l	_____ mg/l
15. COD		_____ mg/l	_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>DAVID B. DOWNE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name OP M-89-02	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input checked="" type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well <u>300</u> min. 4. Depth of well (from top of well casing) <u>112</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>31</u> gal. 7. Volume of water removed from well <u>155</u> gal. 8. Volume of water added (if any) <u>6</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>100.22</u> ft.</td> <td><u>100.05</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>11/16/89</u> m m d d y y</td> <td><u>11/21/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>11:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> </table> Fill in if drilling fluids were used and well is at solid waste facility: 14. Total suspended solids _____ mg/l 15. COD _____ mg/l		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>100.22</u> ft.	<u>100.05</u> ft.	Date	<u>11/16/89</u> m m d d y y	<u>11/21/89</u> m m d d y y	Time	<u>11:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____
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13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____																	

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>WILLARD DYKE</u> Firm: <u>CE ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>CE ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>BADGER ARMY AMUNITION PLANT</u>		Well Name <u>OPM-89-03</u>	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

		Before Development	After Development
1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other <input type="checkbox"/> 3. Time spent developing well <u>1 50</u> min. 4. Depth of well (from top of well casing) <u>162.5</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>30</u> gal. 7. Volume of water removed from well <u>150</u> gal. 8. Volume of water added (if any) <u>6</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)		11. Depth to Water (from top of well casing) <u>151.26</u> ft. Date <u>11/20/89</u> m m d d y y Time <u>8:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. 12. Sediment in well bottom _____ inches 13. Water clarity Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>Cloudy Gray</u> <u>Clear</u> _____ _____ _____ _____ _____	11. Depth to Water (from top of well casing) <u>151.18</u> ft. Date <u>11/21/89</u> m m d d y y Time <u>10:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. 12. Sediment in well bottom _____ inches 13. Water clarity Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ _____ _____ _____ _____

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids _____ mg/l	_____ mg/l
15. COD _____ mg/l	_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>William Dyke</u> Firm: <u>CE ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>William Dyke</u> Firm: <u>CE ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP- USATHAMA	Well Name OAM-91-01
License, Permit or Monitoring Number _____	Wis. Unique Well Number: _____ DNR Well Number: _____

 1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> _____ |

 3. Time spent developing well **55 min.**

 4. Depth of well (from top of well casing) **28.0 ft.**

 5. Inside diameter of well **3.75 in.**

 6. Volume of water in filter pack and well casing **11.0 gal.**

 7. Volume of water removed from well **55.0 gal.**

 8. Volume of water added (if any) **0. gal.**

9. Source of water added _____

 10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

Additional comments on development:

	11	22	33	44	55
T (°C)	~6.5	6.5	6.5	6.5	6.5
pH (units)	~6.5	6.5	6.5	6.5	6.5
cond. (µmhos)	523	531	533	535	535
Time	12:45	12:52	12:58	13:04	13:13

11. Depth to Water (from top of well casing)

Before Development

After Development

 24 hrs.
100%

21.38 ft.
21.42 ft. 91.39

Date

11/02/91
m m d d y y

11/02/91 11/11
m m d d y y

Time

12:30 ☐ a.m. ☒ p.m.

13:25 ☐ a.m. ☒ p.m. **14:00**

12. Sediment in well bottom

_____ inches

_____ inches

13. Water clarity

 Clear ☐ 10

 Clear ☐ 20

 Turbid ☐ 15

 Turbid ☐ 25

(Describe)

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

16. Screen length

10.0 ft.

17. Pump used was Grundfos Redi-Pro 2 w/ straining cloth

 well to casing: SEE DAVE NO GRROUTING
stick-up: INSURE CASING

 initial depth to: 28.02 / 28.10
bottom

 final depth to: **28.08**
bottom

Well developed by: Person's Name and Firm

 Name: **D. Dionne / D. VonBushberger**

 Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

 Signature: **D. Dionne / Nancy E. Rofia**

 Firm: **ABB-ES**

Facility/Project Name BADGER ARMY AMUNITION PLANT		Well Name OAM-89-01	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input checked="" type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only</td><td><input type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well <u>231</u> min.</p> <p>4. Depth of well (from top of well casing) <u>101</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>31</u> gal.</p> <p>7. Volume of water removed from well <u>155</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input checked="" type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only	<input type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>86.31</u> ft.</td> <td><u>86.20</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>11/07/89</u> m m d d y y</td> <td><u>11/08/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>12:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>86.31</u> ft.	<u>86.20</u> ft.	Date	<u>11/07/89</u> m m d d y y	<u>11/08/89</u> m m d d y y	Time	<u>12:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>13:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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15. COD	_____ mg/l	_____ mg/l																																														

Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>DAVID B. DIONNE</u> Firm: <u>CE ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>CE ENVIRONMENTAL</u>
--	--

NOTE: Shaded areas are for DNR use only. See instructions for more information.

County/Project Name BADGER ARMY AMMUNITION PLANT		Well Name OAM-89-02	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input checked="" type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> 3. Time spent developing well <u>285</u> min. 4. Depth of well (from top of well casing) <u>111</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>41</u> gal. 7. Volume of water removed from well <u>305</u> gal. 8. Volume of water added (if any) <u>0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>87.23</u> ft.</td> <td><u>87.21</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>01/15/89</u> m m d d y y</td> <td><u>11/16/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>13:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>BROWN COLOR</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>87.23</u> ft.	<u>87.21</u> ft.	Date	<u>01/15/89</u> m m d d y y	<u>11/16/89</u> m m d d y y	Time	<u>13:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>BROWN COLOR</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>P. DAVID DIXMORE</u> Firm: <u>C E ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>C E ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BADGER ARMY AMMUNITION PLANT		Well Name FTM-89-01	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr> <td style="width:30%;">surged with bailer and bailed</td> <td style="width:10%;"><input type="checkbox"/></td> <td style="width:10%;">4</td> <td style="width:10%;">1</td> </tr> <tr> <td>surged with bailer and pumped</td> <td><input type="checkbox"/></td> <td>6</td> <td>1</td> </tr> <tr> <td>surged with block and bailed</td> <td><input type="checkbox"/></td> <td>4</td> <td>2</td> </tr> <tr> <td>surged with block and pumped</td> <td><input checked="" type="checkbox"/></td> <td>6</td> <td>2</td> </tr> <tr> <td>surged with block, bailed and pumped</td> <td><input type="checkbox"/></td> <td>7</td> <td>0</td> </tr> <tr> <td>compressed air</td> <td><input type="checkbox"/></td> <td>2</td> <td>0</td> </tr> <tr> <td>bailed only</td> <td><input type="checkbox"/></td> <td>1</td> <td>0</td> </tr> <tr> <td>pumped only</td> <td><input checked="" type="checkbox"/></td> <td>5</td> <td>1</td> </tr> <tr> <td>pumped slowly</td> <td><input type="checkbox"/></td> <td>5</td> <td>0</td> </tr> <tr> <td>Other _____</td> <td><input type="checkbox"/></td> <td colspan="2"></td> </tr> </table> <p>3. Time spent developing well <u>200</u> min.</p> <p>4. Depth of well (from top of well casing) <u>99.5</u> ft.</p> <p>5. Inside diameter of well <u>4.0</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>34</u> gal.</p> <p>7. Volume of water removed from well <u>170</u> gal.</p> <p>8. Volume of water added (if any) <u>0</u> gal.</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4	1	surged with bailer and pumped	<input type="checkbox"/>	6	1	surged with block and bailed	<input type="checkbox"/>	4	2	surged with block and pumped	<input checked="" type="checkbox"/>	6	2	surged with block, bailed and pumped	<input type="checkbox"/>	7	0	compressed air	<input type="checkbox"/>	2	0	bailed only	<input type="checkbox"/>	1	0	pumped only	<input checked="" type="checkbox"/>	5	1	pumped slowly	<input type="checkbox"/>	5	0	Other _____	<input type="checkbox"/>			<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>86.55</u> ft.</td> <td><u>86.50</u> ft.</td> </tr> <tr> <td>Date</td> <td><u>11/17/89</u> m m d d y y</td> <td><u>11/20/89</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>15:26</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td><u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>86.55</u> ft.	<u>86.50</u> ft.	Date	<u>11/17/89</u> m m d d y y	<u>11/20/89</u> m m d d y y	Time	<u>15:26</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
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Additional comments on development:

Well developed by: Person's Name and Firm Name: <u>Willard Dyke</u> Firm: <u>C.E. ENVIRONMENTAL</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>Willard Dyke</u> Firm: <u>C.E. ENVIRONMENTAL</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP-USATHAMA	Well Name PBN-91-01C
License, Permit or Monitoring Number _____	Wic. Unique Well Number _____ DNR Well Number _____

 1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-----|
| surged with bailer and bailed | <input checked="" type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | |

 3. Time spent developing well 225 min.

 4. Depth of well (from top of well casing) 87.7 ft.

 5. Inside diameter of well 4.00 in.

 6. Volume of water in filter pack and well casing 66.5 gal.

 7. Volume of water removed from well 1338 gal.

 8. Volume of water added (if any) 335.0 gal.

 9. Source of water added Pump House #2

 10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

 11. Depth to Water
(from top of
well casing)

Before Development

After Development

 24 hr.
later

87.75 ft.

87.68 ft. 87.57

Date

11/21/91
m m d d y y

11/22/91
m m d d y y

Time

15:00 ☐ a.m. ☒ p.m.

10:10 ☐ a.m. ☒ p.m. 10:15

 12. Sediment in well
bottom

_____ inches

_____ inches

13. Water clarity

 Clear ☐ 10

 Turbid ☒ 15

(Describe)

Slightly

 Clear ☒ 20

 Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

 14. Total suspended
solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

 16. Screen
length

10.0 ft.

Additional comments on development:

	<u>initial 946</u>	<u>892</u>	<u>1338</u>
T (°C)	<u>11.5</u>	<u>11.8</u>	<u>12.0</u>
pH (units)	<u>8.0</u>	<u>7.9</u>	<u>8.4</u>
cond. (µmhos)	<u>800</u>	<u>456</u>	<u>676</u>
Time	<u>1510</u>	<u>16.24</u>	<u>0855</u>

3601700 start 10815/11-22

 well to casing: 0.15
stick-up: 2.45

 initial depth to:
bottom 154.70

 final depth to:
bottom 154.68
154.70

Well developed by: Person's Name and Firm

 Name: DAVID B. DIONNE

 Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:

John E. Cate

Firm:

ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

ABB Environmental Services, Inc.
MONITORING WELL DEVELOPMENT FORM

Facility/Project Name BAAP - WELL DEVELOPMENT	Well Name PEN-91-02B
License, Permit or Monitoring Number -----	Wis. Unique Well Number -----
	DNR Well Number -----

 1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-----|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other | <input type="checkbox"/> | |

 3. Time spent developing well 63 min.

 4. Depth of well (from top of well casing) 117.8 ft.

 5. Inside diameter of well 4 in.

 6. Volume of water in filter pack and well casing 42.0 gal.

 7. Volume of water removed from well 210.0 gal.

 8. Volume of water added (if any) 00 gal.

 9. Source of water added NONE

 10. Analysis performed on water added? ☐ Yes ☒ No
 (If yes, attach results)

Additional comments on development:

	<u>10</u>	<u>70</u>	<u>140</u>	<u>210</u>
T (°C)	11.0	10.7	10.8	10.9
pH (units)	7.20	7.31	7.28	7.48
cond. (µmhos)	724	735	739	749

11. Depth to Water (from top of well casing)

Before Development

79.60 ft.

After Development

79.60 ft. ^{24 hrs.}

Date

10/28/91
 m m d d y y

10/28/91
 m m d d y y

Time

09:00 a.m.
☐ p.m.

14:00 a.m.
☐ p.m.

12. Sediment in well bottom

_____ inches

_____ inches

13. Water clarity

 Clear ☐ 10

 Turbid ☒ 15

(Describe)

 Clear ☒ 20

 Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

16. Screen length

17. Pump used was Grund-fos Redi-Flo 2 w/ brass straining cloth

 well to casing: -0.15

 stick-up: 2.35

 initial depth to: 117.78
 bottom

 final depth to: 117.77
 bottom

24 hrs.
117.81

Well developed by: Person's Name and Firm

 Name: B. CHILDS & L. CARTER

 Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:

John E. Carter

Firm:

ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

ABB Environmental Services, Inc.
MONITORING WELL DEVELOPMENT FORM

Facility/Project Name BAAP- USATHAMA		Well Name PBN-91-02C	
License, Permit or Monitoring Number _____		WIS Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/></td><td></td></tr> </table> <p>3. Time spent developing well <u>415</u> min.</p> <p>4. Depth of well (from top of well casing) <u>163.6</u> ft.</p> <p>5. Inside diameter of well <u>4.00</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>85.4</u> gal.</p> <p>7. Volume of water removed from well <u>2437.0</u> gal.</p> <p>8. Volume of water added (if any) <u>670.0</u> gal.</p> <p>9. Source of water added <u>BPW #2</u></p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (with surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other _____	<input type="checkbox"/>		<p>11. Depth to Water (from top of well casing) <u>29.60</u> ft. 24 hr. later <u>79.40</u></p> <p>Date <u>11/22/91</u> <u>11/29/91</u></p> <p>Time <u>10:20</u> a.m. <u>17:15</u> a.m.</p> <p>12. Sediment in well bottom _____ inches</p> <p>13. Water clarity</p> <table style="width:100%;"> <tr><td>Clear <input type="checkbox"/> 10</td><td>Clear <input checked="" type="checkbox"/> 20</td></tr> <tr><td>Turbid <input checked="" type="checkbox"/> 15</td><td>Turbid <input type="checkbox"/> 25</td></tr> <tr><td>(Describe) <u>Slightly</u></td><td>(Describe) _____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td></tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p> <p>16. Screen length <u>10.0 ft.</u></p>	Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20	Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25	(Describe) <u>Slightly</u>	(Describe) _____	_____	_____	_____	_____	_____	_____	_____	_____
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_____	_____																																												
_____	_____																																												
_____	_____																																												
_____	_____																																												

Additional comments on development:

	<u>11:12</u>	<u>13:12</u>	<u>14:24</u>	<u>16:24</u>	<u>24:37</u>
T (°C)	<u>11.4</u>	<u>13.1</u>	<u>11.3</u>	<u>10.4</u>	
pH (units)	<u>8.1</u>	<u>8.0</u>	<u>8.3</u>	<u>8.4</u>	
cond. (µmhos)	<u>720</u>	<u>731</u>	<u>735</u>	<u>696</u>	
Time	<u>10:20</u>	<u>12:35</u>	<u>14:50</u>	<u>17:05</u>	

Well to casing: 0.17
 stick-up: 2.45
 initial depth to: 163.60
 bottom
 final depth to: 163.63
 bottom

163.68

Well developed by: Person's Name and Firm

 Name: DAVID D. DIONNE

 Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

 Signature: [Signature]

 Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>USA THAMA / BAPT</u>	Well Name <u>PBW-91-036</u>
License, Permit or Monitoring Number -----	Wis. Unique Well Number -----
	DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> _____ |

3. Time spent developing well 0050 min.

4. Depth of well (from top of well casing) 108.5 ft

5. Inside diameter of well 4.00 in.

6. Volume of water in filter pack and well casing 40.9 gal.

7. Volume of water removed from well 204.5 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

Additional comments on development:

	<u>10</u>	<u>69</u>	<u>136</u>	<u>204.5</u>
T (°C)	<u>10.4</u>	<u>11.0</u>	<u>11.0</u>	<u>10.9</u>
pH (units)	<u>8.05</u>	<u>7.66</u>	<u>7.70</u>	<u>7.46</u>
cond. (µmhos)	<u>479</u>	<u>720</u>	<u>693</u>	<u>6.85</u>

11. Depth to Water (from top of well casing)

Before Development

After Development

24 ft

73.90 ft

73.78 ft

73 ft

Date

10/27/91
m m d d y y

10/27/91
m m d d y y

Time

10:15 ☒ a.m. ☐ p.m.

15:00 ☐ a.m. ☒ p.m.

12. Sediment in well bottom

_____ inches

_____ inches

13. Water clarity

Clear ☐ 10

Clear ☐ 20

Turbid ☒ 15

Turbid ☐ 25

(Describe)

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

16. Screen length

10.1

17. Pump used was Grundfos Redi-Flow 2 w/ brass straining cloth

well to casing: 0.18

stick-up: 2.34

initial depth to: 108.5

bottom

final depth to: 108.5

bottom

108.51

Well developed by: Person's Name and Firm

Name: L. Carter and R. Pendleton

Firm: ABB Environmental Services, Inc.

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: _____

Firm: _____

Facility/Project Name BAAP-USATHAMA		Well Name PBN-91-03C	
License, Permit or Monitoring Number -----		Wis. Unique Well Number ----- <div style="float: right;">DNR Well Number -----</div>	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>urged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>380</u> min.</p> <p>4. Depth of well (from top of well casing) <u>154.5</u> ft</p> <p>5. Inside diameter of well <u>4.00</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>78.0</u> gal.</p> <p>7. Volume of water removed from well <u>2279.0</u> gal.</p> <p>8. Volume of water added (if any) <u>670.0</u> gal.</p> <p>9. Source of water added <u>BPW #2</u></p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	urged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (with surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th></th> <th>Before Development</th> <th>After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>72.75</u> ft</td> <td><u>72.74</u> ft ^{24 hrs late}</td> </tr> <tr> <td>Date</td> <td><u>11/23/91</u> m m d d y y</td> <td><u>11/23/91 11:24:9</u> m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>08:50</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> <td><u>15:10</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. <u>1450</u></td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>____ inches</td> <td>____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>slightly</u> </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <table style="width:100%;"> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>16. Screen length</td> <td><u>10.0 ft.</u></td> <td></td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>72.75</u> ft	<u>72.74</u> ft ^{24 hrs late}	Date	<u>11/23/91</u> m m d d y y	<u>11/23/91 11:24:9</u> m m d d y y	Time	<u>08:50</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>15:10</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. <u>1450</u>	12. Sediment in well bottom	____ inches	____ inches	13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>slightly</u>	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l	16. Screen length	<u>10.0 ft.</u>	
surged with bailer and bailed	<input type="checkbox"/>	4 1																																																								
surged with bailer and pumped	<input type="checkbox"/>	6 1																																																								
surged with block and bailed	<input type="checkbox"/>	4 2																																																								
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Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>																																																								
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15. COD	_____ mg/l	_____ mg/l																																																								
16. Screen length	<u>10.0 ft.</u>																																																									

Additional comments on development:

	<u>initial</u>	<u>759</u>	<u>1518</u>	<u>2279</u>
T (°C)	<u>11.0</u>	<u>11.0</u>	<u>10.1</u>	<u>10.5</u>
pH (units)	<u>9.6</u>	<u>9.4</u>	<u>8.7</u>	<u>8.0</u>
cond. (µmhos)	<u>603</u>	<u>603</u>	<u>630</u>	<u>626</u>
Time	<u>8:50</u>	<u>1056</u>	<u>1302</u>	<u>1508</u>

well to casing: -0.15
 stick-up: 2.4
 initial depth to: 154.52
 bottom
 final depth to: 154.55 154.55
 bottom

Well developed by: Person's Name and Firm Name: <u>DAVID B. DIENNE</u> Firm: <u>ABB-ES</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>[Signature]</u> Firm: <u>ABB-ES</u>
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Facility/Project Name <u>Berger Army Ammunition Plant</u>		Well Name <u>PBM-90-01D</u>	
License, Permit or Monitoring Number _____		Wis. Unique Well Number _____	DNR Well Number _____

1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No 2. Well development method surged with bailer and bailed <input type="checkbox"/> 4 1 surged with bailer and pumped <input type="checkbox"/> 6 1 surged with block and bailed <input type="checkbox"/> 4 2 surged with block and pumped <input type="checkbox"/> 6 2 surged with block, bailed and pumped <input type="checkbox"/> 7 0 compressed air <input type="checkbox"/> 2 0 bailed only <input type="checkbox"/> 1 0 pumped only <input checked="" type="checkbox"/> 5 1 pumped slowly <input type="checkbox"/> 5 0 Other _____ <input type="checkbox"/> _____ 3. Time spent developing well <u>100</u> min. 4. Depth of well (from top of well casing) <u>213.6</u> ft. 5. Inside diameter of well <u>4.0</u> in. 6. Volume of water in filter pack and well casing <u>96.5</u> gal. 7. Volume of water removed from well <u>485.0</u> gal. 8. Volume of water added (if any) <u>0.0</u> gal. 9. Source of water added _____ 10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="width:30%;"></th> <th style="width:35%;">Before Development</th> <th style="width:35%;">After Development</th> </tr> <tr> <td>11. Depth to Water (from top of well casing)</td> <td><u>88.28</u> ft.</td> <td>_____ ft.</td> </tr> <tr> <td>Date</td> <td><u>09/04/90</u> m m d d y y</td> <td>____/____/____ m m d d y y</td> </tr> <tr> <td>Time</td> <td><u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> <td>____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td> Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____ </td> <td> Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____ </td> </tr> <tr> <td colspan="3"> Fill in if drilling fluids were used and well is at solid waste facility: </td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	<u>88.28</u> ft.	_____ ft.	Date	<u>09/04/90</u> m m d d y y	____/____/____ m m d d y y	Time	<u>16:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l
	Before Development	After Development																										
11. Depth to Water (from top of well casing)	<u>88.28</u> ft.	_____ ft.																										
Date	<u>09/04/90</u> m m d d y y	____/____/____ m m d d y y																										
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12. Sediment in well bottom	_____ inches	_____ inches																										
13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____																										
Fill in if drilling fluids were used and well is at solid waste facility:																												
14. Total suspended solids	_____ mg/l	_____ mg/l																										
15. COD	_____ mg/l	_____ mg/l																										

Additional comments on development: _____

Well developed by: Person's Name and Firm Name: <u>R. David Dinsmore</u> Firm: <u>E.C. Jordan</u>	I hereby certify that the above information is true and correct to the best of my knowledge. Signature: <u>P.L. Bl</u> Firm: <u>E.C. Jordan</u>
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NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name
Badger Army Ammunition Plant
License, Permit or Monitoring Number

Well Name
PBM-90-020

Wis. Unique Well Number

DNR Well Number

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☐ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only ☒ 5 1
pumped slowly ☐ 5 0
Other ☐ _____

3. Time spent developing well 210 min.

4. Depth of well (from top of well casing) 207.8 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 209.0 gal.

7. Volume of water removed from well 1042.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added NA

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

11. Depth to Water
(from top of
well casing)

Before Development

After Development

29.01 ft.

_____ ft.

Date

09/05/90
m m d d y y

____/____/____
m m d d y y

Time

02:00 ☐ a.m. ☒ p.m.

____:____ ☐ a.m. ☐ p.m.

12. Sediment in well
bottom

_____ inches

_____ inches

13. Water clarity

Clear ☒ 10
Turbid ☐ 15
(Describe)

Clear ☐ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended
solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Name: R. David Dunsmore

Firm: E.C. Jordan

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Firm: E.C. Jordan

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>Barber Army Ammunition Plant</u>	Well Name <u>PSM-90-030</u>
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> _____ |

3. Time spent developing well 205 min.

4. Depth of well (from top of well casing) 201.8 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 1105.0 gal.

7. Volume of water removed from well 3525.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

Additional comments on development:

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>23.20</u> ft.	_____ ft.
Date	<u>09/05/90</u> m m d d y y	____/____/____ m m d d y y
Time	<u>11:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>R. David Dinsman</u>	Signature: <u>[Signature]</u>
Firm: <u>E.C. Jordan</u>	Firm: <u>E.C. Jordan</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>Beecher Army Ammunition Plant</u>	Well Name <u>PBW-90-04B</u>
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____
	DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other _____ | <input type="checkbox"/> |

3. Time spent developing well 120 min.

4. Depth of well (from top of well casing) 122.5 ft.

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 798.0 gal.

7. Volume of water removed from well 3990.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Before Development

After Development

92.02 ft.

_____ ft.

Date

09/06/90
m m d d y y

____/____/____
m m d d y y

Time

08:00 ☒ a.m. ☐ p.m.

____:____ ☐ a.m. ☐ p.m.

12. Sediment in well bottom

_____ inches

_____ inches

13. Water clarity

Clear ☐ 10

Clear ☐ 20

Turbid ☒ 15

Turbid ☐ 25

(Describe)

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm

Name: R. David Dinsmore

Firm: E.C. Jordan

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: *R. David Dinsmore*

Firm: E.C. Jordan

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name <u>Bader Army Ammunition Plant</u>	Well Name <u>PBM-90-040</u>
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-------------|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | <u> </u> |

3. Time spent developing well 2135 min.

4. Depth of well (from top of well casing) 220.1 ft

5. Inside diameter of well 4.0 in.

6. Volume of water in filter pack and well casing 3492.0 gal.

7. Volume of water removed from well 10,665.0 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added _____

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>92.04</u> ft	_____ ft
Date	<u>08/28/90</u> m m d d y y	____/____/____ m m d d y y
Time	<u>14:00</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	____:____ <input type="checkbox"/> a.m. <input type="checkbox"/> p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____	Clear <input type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) _____

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l

Additional comments on development:

Well developed by: Person's Name and Firm	I hereby certify that the above information is true and correct to the best of my knowledge.
Name: <u>R. David Dismore</u>	Signature: <u>[Signature]</u>
Firm: <u>E.C. Jordan</u>	Firm: <u>E.C. Jordan</u>

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP - USATHAMA	Well Name SWN-91-01B
License, Permit or Monitoring Number -----	Wic. Unique Well Number: ----- DNR Well Number: -----

 1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-----|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other | <input type="checkbox"/> | |

(10-14) 54 0 + (10-14)

3. Time spent developing well

----- min.

4. Depth of well (from top of well casing)

115.2 ft

(from diagram) 113.1 ft

5. Inside diameter of well

3.3 in.

6. Volume of water in filter pack and well casing

23.9 gal

(10-14) 1350 + (10-14)

7. Volume of water removed from well

2833.0 gal

8. Volume of water added (if any)

100.0 gal

(during drilling)

9. Source of water added

BAAP production well #2

10. Analysis performed on water added?

☒ Yes ☐ No

(If yes, attach results)

Additional comments on development:

	initial	10:30	11:30	12:30
T (°C)	10.4	10.0	11.9	10.3
pH (units)	7.5	7.0	7.4	6.9
cond. (µmhos)	605	600	735	633
Time	0950	1530	1045	1700

SUP NOTES ON BACK (1051)

11. Depth to Water (from top of well casing)

Before Development: 78.67 ft

After Development: 78.68 ft

24 hrs. after 78.64

Date

 12/18/91
m m d d y y

 12/19/91
m m d d y y

10-20-91

Time

9:15 a.m.

12:00 a.m.

1810

12. Sediment in well bottom

----- inches

----- inches

13. Water clarity

 Clear ☐ 10
Turbid ☒ 15
(Describe) cloudy

 Clear ☒ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

----- mg/l

----- mg/l

15. COD

----- mg/l

----- mg/l

16. Screen length

10.0 ft.

turn over for calculations + notes

17. Pump used was Grundfos Redi-Flo 2 (w/ brass straining cloth + 3/8" ID tubing)

well to casing: -.20

-.20

stick-up: 2.2±

2.25±

initial depth to bottom: 115.19

final depth to bottom: 115.30

115.16 (fine sand in bottom)

*No collar yet

Well developed by: Person's Name and Firm

Name: V. Miller / N. Roka

Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Nancy E. Roka

Firm: ABB-ES

- started pumping at 0930. Pump rate at 2.5 gal/min. at 329 Hz. (Top of H₂O column) (1030) Lowered pump to bottom of well and continued surging. No visible silt.

NOTE: Shaded areas are for DNR use only. See instructions for more information.

- (1045-1100) Pump slowing. With surging, we increased pump rate and brought up quite a bit of brown silt. Continued surging frequently until H₂O cleared + pump rate remained at 2.5+ gal/min.

- (1230) Pump rate still 2.5+ gpm

- (1220) Started pumping for drill (almost done). Pumped finished at just under 25 gpm at 335 Hz.

Facility/Project Name BAAP- USATHAMA	Well Name SWN-91-01C
License, Permit or Monitoring Number -----	Well Unique Well Number -----
	DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- ☐ 4 1
☐ 6 1
☐ 4 2
☐ 6 2
☐ 7 0
☐ 2 0
☐ 1 0
☒ 5 1
☐ 5 0
 Other ☐

3. Time spent developing well **1125 min.**

4. Depth of well (from top of well casing) **160.2 ft**

5. Inside diameter of well **3.3 in.**

6. Volume of water in filter pack and well casing **75.0 gal**

7. Volume of water removed from well **3375.0 gal**

8. Volume of water added (if any) **1000.0 gal**

9. Source of water added **BPW #2**

10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

Additional comments on development

	initial	1125	2250	3375
T (°C)	12.1	12.7	12.1	12.8
pH (units)	7.9	7.5	7.4	7.4
cond. (µmhos)	383	567	633	654
Time	0745	1400	0835	1450
Date	10-22-91	10-22-91	10-23-91	10-23-91

Well developed by: Person's Name and Firm

Name: **N. Roka / V. Miller**

Firm: **ABB-ES**

11. Depth to Water (from top of well casing)

Date

Time

12. Sediment in well bottom

13. Water clarity

Before Development

After Development

24 hr after

79.43 ft.

79.47 ft.

10/22/91
m m d d y y

10/23/91
m m d d y y

7:35 a.m.
p.m.

14:30 a.m.
p.m.

inches

inches

Clear ☐ 10
Turbid ☒ 15
(Describe)

Clear ☒ 20
Turbid ☐ 25
(Describe)

Effervescent

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

15. COD

16. Screen length

10.0 ft.

17. Ground for Redi-Flo pump w/ a brass straining cloth used for development. **3/8" 15**

well to casing: **-.09**

stick-up: **2.7±**

initial depth to: **160.18**
bottom

final depth to: **160.15**
bottom

* No collar on well yet

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:

Firm:

Nancy E. Roka

ABB-ES

(0745) Pump on & running at 3 gpm. Top of H₂O column

(0820) Lowered to bottom of well & surged for ~1/2 hr. Slightly turbid surged to cloudy. H₂O NOT clear. Shaded areas are for DNR use only. See instructions for more information. appeared effervescent. Pumping 3 gpm.

(1040) Surged. No silt. H₂O still very effervescent. 3 gpm.

(1535) Surged- No silt- very effervescent. 3 gpm.

(1845) Had surged few more times. Shut down pump after 11 hrs. and 1980 gal.

(1023.91) (0705) started pumping at low 3 gpm. effervescent. calibrated pH/cond. meter #12 to 4.7.

(1420) Surged. Clear. Effervescent. Pumped to top of H₂O column.

Facility/Project Name <u>USA THAM A / BARR</u>	Well Name <u>SWN-90-01 D</u>
License, Permit or Monitoring Number -----	Wic. Unique Well Number -----
	DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No
2. Well development method
- | | |
|--------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other | <input type="checkbox"/> <u> </u> |
3. Time spent developing well 1130 min.
4. Depth of well (from top of well casing) 200.72
5. Inside diameter of well 4 in.
6. Volume of water in filter pack and well casing 110.0 gal.
7. Volume of water removed from well 5650.0 gal.
8. Volume of water added (if any) 1700.0 gal.
9. Source of water added BPN-2
10. Analysis performed on water added? ☐ Yes ☐ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>78.92</u> ft	<u>79.04</u> ft <u>79.02</u>
Date	<u>10/24/91</u> m m d d y y	<u>10/26/91</u> m m d d y y
Time	<u>13:30</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>12:45</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. <u>17:15</u>
12. Sediment in well bottom	----- inches	----- inches
13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe)	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)
14. Total suspended solids	----- mg/l	----- mg/l
15. COD	----- mg/l	----- mg/l
16. Screen length	<u>10</u> ft	

Fill in if drilling fluids were used and well is at solid waste facility:

Additional comments on development:

	<u>INITIAL</u>	<u>1883</u>	<u>3766</u>	<u>5850</u>
T (°C)	<u>13.1</u>	<u>10.7</u>	<u>10.2</u>	<u>10.2</u>
pH (units)	<u>7.7</u>	<u>7.60</u>	<u>7.55</u>	<u>7.55</u>
cond. (µmhos)	<u>456</u>	<u>683</u>	<u>701</u>	<u>6.65</u>
Time	<u>1410</u>	<u>1200</u>	<u>1100</u>	<u>1700</u>
Date	<u>10/24/91</u>	<u>10/25/91</u>	<u>10/26/91</u>	<u>10/26/91</u>

17. Ground for Redi-Flo pump w/ brass straining cloth used for development

well to casing: .18
stick-up: 2.3
initial depth to bottom: 200.69
final depth to bottom: 200.63 200.62

Well developed by: Person's Name and Firm

Name: BILL CHILDS & LAURA CARTER
Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Bill Childs
Firm: ABB-ES

(1400) Pump on and running at 48 gpm top of H2O Column

NOTE: Shaded areas are for DNR use only. See instructions for more information.

(1430) lowered pump to bottom of well and surged until clear
(1700) Shut pump off for day
(0045) Restart pump flow rate = 25 gpm

10/26/91 STARTED PUMP @ 0930
SAMPLED @ 1100 - 1700
FINAL USA SAMPLES @ 1700
SHUT OFF PUMP @ 1700

Facility/Project Name BAAP- USATHAMA		Well Name SWN- 91-02C	
License, Permit or Monitoring Number -----		Wic. Unique Well Number -----	DNR Well Number -----

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/> </td></tr> </table> <p>3. Time spent developing well (Pumping Time) 390 min.</p> <p>4. Depth of well (from top of well casing) 154.6 ft.</p> <p>5. Inside diameter of well 4.00 in.</p> <p>6. Volume of water in filter pack and well casing 66.0 gal. 330.0 gal.</p> <p>7. Volume of water removed from well 1530.0 gal.</p> <p>8. Volume of water added (if any) 400.0 gal. (During Installation)</p> <p>9. Source of water added _____</p> <p>10. Analysis performed on water added? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only (with surging)	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other	<input type="checkbox"/> 	<p>11. Depth to Water (from top of well casing)</p> <table style="width:100%;"> <tr> <th>Before Development</th> <th>After Development</th> </tr> <tr> <td>82.66 ft.</td> <td>82.70 ft.</td> </tr> </table> <p>Date 11/19/91 11/19/91</p> <p>Time 9:10 a.m. 16:00 p.m.</p> <p>12. Sediment in well bottom _____ inches</p> <p>13. Water clarity</p> <table style="width:100%;"> <tr> <td>Clear <input checked="" type="checkbox"/> 10</td> <td>Clear <input checked="" type="checkbox"/> 20</td> </tr> <tr> <td>Turbid <input type="checkbox"/> 15</td> <td>Turbid <input type="checkbox"/> 25</td> </tr> <tr><td colspan="2">(Describe)</td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p> <p>16. Screen length 10.0 ft.</p>	Before Development	After Development	82.66 ft.	82.70 ft.	Clear <input checked="" type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20	Turbid <input type="checkbox"/> 15	Turbid <input type="checkbox"/> 25	(Describe)											
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(Describe)																																									

Additional comments on development: **Gal. 516 gal 1032 1530**

	730	847	1363	1530
T (°C)	10.7	10.6	10.9	10.6
pH (units)	7.79	7.59	7.30	7.5
Cond. (µmhos)	659	660	662	661
Time	9:10	11:20	13:30	15:40

Add 20 min for duration of pump

well to casing: **0.23**

stick-up: **1.30**

initial depth to: **154.6**

bottom

final depth to: **154.6**

bottom **** 154.55**

Well developed by: Person's Name and Firm

Name: **L. Carter + J. Jacobson**

Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **[Signature]**

Firm: **ABB-ES**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Started pumping @ 9:10 @ 4gpm

stop @ 15:40

* Depth measured 24 hrs later but pumping had started @ well 020 @ 10:20 am

Facility/Project Name BAAP- USATHAMA		Well Name SWN-91-02D	
License, Permit or Monitoring Number -----		WIS. Unique Well Number: _____ DNR Well Number: _____	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table border="0"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td></td></tr> </table> <p>3. Time spent developing well <i>pump purging time</i> - 249 min.</p> <p>4. Depth of well (from top of well casing) 187.4 ft</p> <p>5. Inside diameter of well - 4.00 in.</p> <p>6. Volume of water in filter pack and well casing 98.3 gal</p> <p>7. Volume of water removed from well 2997.0 gal</p> <p>8. Volume of water added (if any) <i>During Installation</i> 835.0 gal</p> <p>9. Source of water added BAAP PW #2</p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (with surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>		<p>11. Depth to Water (from top of well casing)</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Before Development</th> <th>After Development</th> </tr> </thead> <tbody> <tr> <td>11. Depth to Water (from top of well casing)</td> <td>- 22.95 ft</td> <td>- 83.05 ft 83.03</td> </tr> <tr> <td>Date</td> <td>11/20/91 m m d d y y</td> <td>11/21/91 m m d d y y</td> </tr> <tr> <td>Time</td> <td>10:20 <input checked="" type="checkbox"/> a.m. (to 16:45) <input type="checkbox"/> p.m.</td> <td>14:04 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</td> </tr> <tr> <td>12. Sediment in well bottom</td> <td>_____ inches</td> <td>_____ inches</td> </tr> <tr> <td>13. Water clarity</td> <td>Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) Pump changed with fine sand had to disassemble and clean in place. water quality was clear.</td> <td>Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)</td> </tr> <tr> <td colspan="3">Fill in if drilling fluids were used and well is at solid waste facility:</td> </tr> <tr> <td>14. Total suspended solids</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>15. COD</td> <td>_____ mg/l</td> <td>_____ mg/l</td> </tr> <tr> <td>16. Screen length</td> <td>10.0 ft.</td> <td></td> </tr> </tbody> </table>		Before Development	After Development	11. Depth to Water (from top of well casing)	- 22.95 ft	- 83.05 ft 83.03	Date	11/20/91 m m d d y y	11/21/91 m m d d y y	Time	10:20 <input checked="" type="checkbox"/> a.m. (to 16:45) <input type="checkbox"/> p.m.	14:04 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	12. Sediment in well bottom	_____ inches	_____ inches	13. Water clarity	Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) Pump changed with fine sand had to disassemble and clean in place. water quality was clear.	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe)	Fill in if drilling fluids were used and well is at solid waste facility:			14. Total suspended solids	_____ mg/l	_____ mg/l	15. COD	_____ mg/l	_____ mg/l	16. Screen length	10.0 ft.	
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Additional comments on development:
0 gal 999 gal 1998 - 2997

	10.6	10.9	9.9	10.3
T (°C)	8.2	8.2	8.27	8.24
pH (units)	522	605	594	598
cond. (µmhos)	10:20	14:30	9:54	14:04
Time	(11/20)	(11/20)	(11/21)	(11/20)

well to casing: **- 0.17**

stick-up: **1.45**

initial depth to: **187.36**

bottom

final depth to: **187.10**

bottom **187.10**

Well developed by: Person's Name and Firm

Name: **L. Carter & J. Jacobson**Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **R.D. Jacobson**Firm: **ABB-ES**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Stopped pumping at 16:45 (also gen. ran out of gas) started pumping again @ 8:20 am 11/21

Run time 6:25 or 385 min. x 4 gpm = 1540 gpm pumped on 11/20

1998 gal = 1540 x 4 gpm = 6160 gal / 4 gpm = 1540 min until next sample (1540 + 1 hr 54 min) = 9:54 am

Factory/Project Name BAAP - USATHAMA				Well Name SWN-91-03B	
License, Permit or Monitoring Number -----				Well Unique Well Number -----	
				DNR Well Number -----	

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/></td><td>4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/></td><td>6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/></td><td>4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/></td><td>6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/></td><td>7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/></td><td>2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/></td><td>1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/></td><td>5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/></td><td>5 0</td></tr> <tr><td>Other</td><td><input type="checkbox"/></td><td><div style="border: 1px solid black; width: 40px; height: 15px;"></div></td></tr> </table> <p>3. Time spent developing well <u>750</u> min.</p> <p>4. Depth of well (from top of well casing) <u>115.5</u> ft</p> <p>5. Inside diameter of well <u>4.00</u> in.</p> <p>6. Volume of water in filter pack and well casing <u>45.6</u> gal.</p> <p>7. Volume of water removed from well <u>1730.0</u> gal.</p> <p>8. Volume of water added (if any) <u>500.0</u> gal.</p> <p>9. Source of water added <u>BAAP prot. well #2</u></p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/>	4 1	surged with bailer and pumped	<input type="checkbox"/>	6 1	surged with block and bailed	<input type="checkbox"/>	4 2	surged with block and pumped	<input type="checkbox"/>	6 2	surged with block, bailed and pumped	<input type="checkbox"/>	7 0	compressed air	<input type="checkbox"/>	2 0	bailed only	<input type="checkbox"/>	1 0	pumped only (with surging)	<input checked="" type="checkbox"/>	5 1	pumped slowly	<input type="checkbox"/>	5 0	Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>	<p>11. Depth to Water (from top of well casing) <u>84.67</u> ft</p> <p>Date <u>11/07/91</u> m m d d y y</p> <p>Time <u>09:00</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m. <u>12 30</u></p> <p>12. Sediment in well bottom <u> </u> inches</p> <p>13. Water clarity Clear <input checked="" type="checkbox"/> 10 Turbid <input type="checkbox"/> 15 (Describe) _____</p> <p>14. Total suspended solids <u> </u> mg/l</p> <p>15. COD <u> </u> mg/l</p> <p>16. Screen length <u>10.0</u> ft</p> <p>17. Pump used was <u>Grunder Redi-Flo 2</u> w/ straining cloth</p> <p>well to casing: <u>0.08</u> stick-up: <u>1.92</u> initial depth to: <u>115.54</u> bottom final depth to: <u>115.35</u> bottom</p>
surged with bailer and bailed	<input type="checkbox"/>	4 1																													
surged with bailer and pumped	<input type="checkbox"/>	6 1																													
surged with block and bailed	<input type="checkbox"/>	4 2																													
surged with block and pumped	<input type="checkbox"/>	6 2																													
surged with block, bailed and pumped	<input type="checkbox"/>	7 0																													
compressed air	<input type="checkbox"/>	2 0																													
bailed only	<input type="checkbox"/>	1 0																													
pumped only (with surging)	<input checked="" type="checkbox"/>	5 1																													
pumped slowly	<input type="checkbox"/>	5 0																													
Other	<input type="checkbox"/>	<div style="border: 1px solid black; width: 40px; height: 15px;"></div>																													

<p>Additional comments on development</p> <table style="width:100%;"> <tr> <td></td> <td>00:47</td> <td>13:07</td> <td>12</td> </tr> <tr> <td></td> <td>0</td> <td>500</td> <td>1000</td> </tr> <tr> <td>T (°C)</td> <td>9.2</td> <td>9.5</td> <td>9.0</td> </tr> <tr> <td>pH (units)</td> <td>7.79</td> <td>7.22</td> <td>7.52</td> </tr> <tr> <td>cond. (µmhos)</td> <td>671</td> <td>468</td> <td>668</td> </tr> <tr> <td></td> <td>11:15</td> <td>14:40</td> <td>12:55</td> </tr> </table> <p><u>14:40</u> → Bpke down @ 16:30 w/ 5 min delay for gas filling</p>		00:47	13:07	12		0	500	1000	T (°C)	9.2	9.5	9.0	pH (units)	7.79	7.22	7.52	cond. (µmhos)	671	468	668		11:15	14:40	12:55	<p>well to casing: <u>0.08</u> stick-up: <u>1.92</u> initial depth to: <u>115.54</u> bottom final depth to: <u>115.35</u> bottom</p>
	00:47	13:07	12																						
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T (°C)	9.2	9.5	9.0																						
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cond. (µmhos)	671	468	668																						
	11:15	14:40	12:55																						

<p>Well developed by: Person's Name and Firm</p> <p>Name: <u>D. Dionne / D. VonBushberger</u></p> <p>Firm: <u>ABB-ES</u></p>	<p>I hereby certify that the above information is true and correct to the best of my knowledge.</p> <p>Signature: <u>D. Dionne / Nancy E. Rot.</u></p> <p>Firm: <u>ABB-ES</u></p>
--	---

NOTE: Shaded areas are for DNR use only. See instructions for more information.

*No final observational sample collected - H₂O was clear

Facility/Project Name BAAP	Well Name SWN-91-03C
License, Permit or Monitoring Number _____	Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-----|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | |

3. Time spent developing well _____ min.

4. Depth of well (from top of well casing) **165.3** ft

5. Inside diameter of well **4.0** in.

6. Volume of water in filter pack and well casing **388** gal.

7. Volume of water removed from well **8488.0** gal.

8. Volume of water added (if any) **2.0** gal.

9. Source of water added _____

10. Analysis performed on water added? **N/A** ☐ Yes ☒ No
(If yes, attach results)

11. Depth to Water
(from top of
well casing)

Before Development

After Development

24h

84.57 ft

84.50 ft **84.5**

Date

11/09/91
m m d d y y

11/18/91 **11/19/91**
m m d d y y

Time

8:30 ☒ a.m. ☐ p.m.

17:00 ☐ a.m. ☒ p.m. **16:48**

12. Sediment in well
bottom

_____ inches

_____ inches

13. Water clarity

Clear ☒ 10

Clear ☒ 20

Turbid ☐ 15

Turbid ☐ 25

(Describe)

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended
solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

16. Screen
length

10 ft.

Additional comments on development:

	388	3088	5788	8488
T (°C)	8.4	8.8	9.8	10.3
pH (units)	7.78	8.01	7.41	7.87
cond. (µmhos)	426	442	416	433

well to casing: **- 0.01**

stick-up: **2'**

-0.01

initial depth to:
bottom **165.34**

final depth to:
bottom **165.40**

165.40

Well developed by: Person's Name and Firm

Name: **J. JACOBSON & L. CARTER**

Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **Laura E. Carter**

Firm: **ABB-ES**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

30' an pumping 11/9/91 @ 08:30 • Took samples (VOC) after 5 volumes from top
FJ w hole = 3 1/2 pm of water column. @ 10:40
Time to remove 1 vol = 26 min.

ABB Environmental Services, Inc.
MONITORING WELL DEVELOPMENT FORM

Facility/Project Name USATHAMA - BAAP	Well Name SWN - 91-03D
License, Permit or Monitoring Number 7	Wic. Unique Well Number DNR Well Number

1. Can this well be purged dry? ☐ Yes ☒ No
2. Well development method
- | | |
|--------------------------------------|--|
| surged with bailer and bailed | <input type="checkbox"/> 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> 6 1 |
| surged with block and bailed | <input type="checkbox"/> 4 2 |
| surged with block and pumped | <input type="checkbox"/> 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> 7 0 |
| compressed air | <input type="checkbox"/> 2 0 |
| bailed only | <input type="checkbox"/> 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> 5 1 |
| pumped slowly | <input type="checkbox"/> 5 0 |
| Other | <input type="checkbox"/> <u> </u> |

3. Time spent developing well min.

4. Depth of well (from top of well casing) **210.4 ft**

5. Inside diameter of well **4.00 in**

6. Volume of water in filter pack and well casing **564.4 gal**

7. Volume of water removed from well **2664.4 gal**

8. Volume of water added (if any) **700.0 gal**

9. Source of water added **BAAP PUW#2**

10. Analysis performed on water added? ☒ Yes ☒ No
(If yes, attach results)

Additional comments on development:

	11/7	11/8	12/20	1/30
T (°C)	9.6	8.7	9.6	9.3
pH (units)	7.24	7.23	7.94	7.94
cond. (µmhos)	532	528	536	524

11. Depth to Water (from top of well casing)

Before Development	After Development
82.04 ft	85.03 ft ^{24h.}
Date 11/07/91 m m d d y y	Date 11/03/91 ^{11:09} m m d d y y
Time 09:26 ^{a.m.} p.m.	Time 16:45 ^{a.m.} p.m. ¹⁶⁴⁵

12. Sediment in well bottom inches

13. Water clarity

Clear <input checked="" type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20
Turbid <input type="checkbox"/> 15	Turbid <input type="checkbox"/> 25
(Describe)	(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids mg/l

15. COD mg/l

16. Screen length **10 ft**

17. Pump used was Grundfos Redi-Flow 2 w/ brass straining cloth

well to casing: flush
stick-up: **1.11** (from rock bed)

initial depth to bottom: **210.41 ft**

final depth to bottom: **210.45** **210.44**

Well developed by: Person's Name and Firm

Name: **P. OWEN & L. CARTER**

Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **Lynn E. Carter**

Firm: **ABB-ES**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

BEGAN PUMPING 11/7/91 09:26

FLOW RATE = 3 gpm

TIME TO REMOVE 1 VOLUME = 37 MIN.

TOOK SAMPLES (VOC) AFTER 5 VOLUMES WERE REMOVED (12:35). LOWERED PUMP + SURGED. REMOVED 2100 gal. @ 3 gpm. 11.6 HOURS TO COMPLETE. 11/8/91 STARTED PUMP AT 5:30 SAMPLED

Facility/Project Name BAAP- USATHAMA	Well Name SWN-91-03E
License, Permit or Monitoring Number -----	Vis. Unique Well Number ----- <div style="float: right;">DNR Well Number -----</div>

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-----|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other | <input type="checkbox"/> | |

3. Time spent developing well 190 min.

4. Depth of well (from top of well casing) 240.5 ft.

5. Inside diameter of well 4.00 in.

6. Volume of water in filter pack and well casing 131.0 gal.

7. Volume of water removed from well 331.0 gal.

8. Volume of water added (if any) 67.0 gal.

9. Source of water added BPW #2

10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

11. Depth to Water
(from top of well casing)

Before Development

85.19 ft.

After Development

85.28 ft. 85.28

Date

11/12/91
m m d d y y

11/12/91
m m d d y y

Time

08:15 ☐ a.m. ☒ p.m.

11:25 ☐ a.m. ☒ p.m.

12. Sediment in well bottom

--- inches

--- inches

13. Water clarity

Clear ☐ 10

Turbid ☒ 15

(Describe)

Clear ☒ 20

Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

--- mg/l

--- mg/l

15. COD

--- mg/l

--- mg/l

16. Screen length

10'

10'

Additional comments on development:

INITIAL 76.1 52.2 78.3 104.1 131
T (°C) 9.7 10.2 10.5 10.3 10.9
pH (units) 7.6 7.8 7.78 7.82 7.81
cond. (umhos) 6.25 6.27 6.27 6.29 6.29
Time 08:45 09:15 09:30 09:40 09:50

well to casing: .19'
stick-up: 2.93'
initial depth to: 240.49
bottom
final depth to: 240.49
bottom

.18
1.5
240.48

Well developed by: Person's Name and Firm

Name: P. OWEN + L. CARTER

Firm: ABB - ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]

Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Facility/Project Name BAAP- USATHAMA Well Name SWN-91-04C

License, Permit or Monitoring Number _____ Wis. Unique Well Number _____ DNR Well Number _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- surged with bailer and bailed ☐ 4 1
surged with bailer and pumped ☐ 6 1
surged with block and bailed ☐ 4 2
surged with block and pumped ☐ 6 2
surged with block, bailed and pumped ☐ 7 0
compressed air ☐ 2 0
bailed only ☐ 1 0
pumped only (with surging) ☒ 5 1
pumped slowly ☐ 5 0
Other ☐ _____

3. Time spent developing well 343 min.

4. Depth of well (from top of well casing) 165.5 ft.

5. Inside diameter of well 4.00 in.

6. Volume of water in filter pack and well casing 73.1 gal.

7. Volume of water removed from well 2375.0 gal.

8. Volume of water added (if any) 335.0 gal.

9. Source of water added BPW #2 @ 8:30

10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

Additional comments on development:

T (°C)	10.4	11.0	11.4	12.2
pH (units)	8.15	8.44	8.05	8.25
cond. (umhos)	546	633	654	662
Time	15:00	15:30	16:00	16:45
	(11/21)	(11/22)	(11/22)	(11/22)

sample every 3 hrs 1st in

Well developed by: Person's Name and Firm

Name: R.D. Johnson

Firm: ABB-ES

11. Depth to Water (from top of well casing) Before Development 84.28 ft. After Development 84.39 ft. ^{24.5} _{ladder}

Date 11/21/91 11/22/91
m m d d y y m m d d y y

Time 15:00 ☐ a.m. ☒ p.m. 12:03 ☐ a.m. ☒ p.m. ^{12:15}

12. Sediment in well bottom _____ inches _____ inches

13. Water clarity Clear ☐ 10 Turbid ☒ 15 (Describe) small amt of fines
make water slightly turbid
after a few minutes of pumping

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids _____ mg/l _____ mg/l

15. COD _____ mg/l _____ mg/l

16. Screen length 10.0 ft.

Well to casing: -0.22
stick-up: 1.70
initial depth to: 165.47
bottom
final depth to: 165.48
bottom ^{165.48}

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: R.D. Johnson

Firm: ABB-ES

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Started pumping again 11/22 @ 8:05. 2nd sample with 1st take @ 7:20. Total of 3375 gal with require 342 min. Shut down @ 16:45 11/21 for total pumping of 105 min x 4 gpm = 420

(1) Started Pumping @ 15:00 @ 4 gpm. Total of 3375 gal with require 342 min. Shut down @ 16:45 11/21 for total pumping of 105 min x 4 gpm = 420

ABB Environmental Services, Inc.
MONITORING WELL DEVELOPMENT FORM

Facility/Project Name BAAP - USATHAMA		Well Name SWN-91-04D	
License, Permit or Monitoring Number _____		Wic. Unique Well Number _____	DNR Well Number _____

<p>1. Can this well be purged dry? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Well development method</p> <table style="width:100%;"> <tr><td>surged with bailer and bailed</td><td><input type="checkbox"/> 4 1</td></tr> <tr><td>surged with bailer and pumped</td><td><input type="checkbox"/> 6 1</td></tr> <tr><td>surged with block and bailed</td><td><input type="checkbox"/> 4 2</td></tr> <tr><td>surged with block and pumped</td><td><input type="checkbox"/> 6 2</td></tr> <tr><td>surged with block, bailed and pumped</td><td><input type="checkbox"/> 7 0</td></tr> <tr><td>compressed air</td><td><input type="checkbox"/> 2 0</td></tr> <tr><td>bailed only</td><td><input type="checkbox"/> 1 0</td></tr> <tr><td>pumped only (with surging)</td><td><input checked="" type="checkbox"/> 5 1</td></tr> <tr><td>pumped slowly</td><td><input type="checkbox"/> 5 0</td></tr> <tr><td>Other _____</td><td><input type="checkbox"/> _____</td></tr> </table> <p>3. Time spent developing well 746 min.</p> <p>4. Depth of well (from top of well casing) 199.5 ft</p> <p>5. Inside diameter of well 4.00 in.</p> <p>6. Volume of water in filter pack and well casing 75.2 gal.</p> <p>7. Volume of water removed from well 2982.0 gal.</p> <p>8. Volume of water added (if any) 835.0 gal.</p> <p>9. Source of water added BPW #2</p> <p>10. Analysis performed on water added? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No (If yes, attach results)</p>	surged with bailer and bailed	<input type="checkbox"/> 4 1	surged with bailer and pumped	<input type="checkbox"/> 6 1	surged with block and bailed	<input type="checkbox"/> 4 2	surged with block and pumped	<input type="checkbox"/> 6 2	surged with block, bailed and pumped	<input type="checkbox"/> 7 0	compressed air	<input type="checkbox"/> 2 0	bailed only	<input type="checkbox"/> 1 0	pumped only (with surging)	<input checked="" type="checkbox"/> 5 1	pumped slowly	<input type="checkbox"/> 5 0	Other _____	<input type="checkbox"/> _____	<p>11. Depth to Water (from top of well casing)</p> <table style="width:100%;"> <tr> <th>Before Development</th> <th>After Development</th> <th>24 hrs. later</th> </tr> <tr> <td>84.60 ft</td> <td>84.60 ft</td> <td>84.45</td> </tr> </table> <p>Date 11/22/91 11/23/91 11/24/91 m m d d y y m m d d y y</p> <p>Time 12:15 16:31 16:00 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m. <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.</p> <p>12. Sediment in well bottom _____ inches</p> <p>13. Water clarity</p> <table style="width:100%;"> <tr> <td>Clear <input type="checkbox"/> 10</td> <td>Clear <input checked="" type="checkbox"/> 20</td> </tr> <tr> <td>Turbid <input checked="" type="checkbox"/> 15</td> <td>Turbid <input type="checkbox"/> 25</td> </tr> </table> <p>(Describe) Slightly cloudy cleared after a few minutes of pumping after purging</p> <p>Fill in if drilling fluids were used and well is at solid waste facility:</p> <p>14. Total suspended solids _____ mg/l</p> <p>15. COD _____ mg/l</p> <p>16. Screen length 10.0 ft.</p>	Before Development	After Development	24 hrs. later	84.60 ft	84.60 ft	84.45	Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20	Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25
surged with bailer and bailed	<input type="checkbox"/> 4 1																														
surged with bailer and pumped	<input type="checkbox"/> 6 1																														
surged with block and bailed	<input type="checkbox"/> 4 2																														
surged with block and pumped	<input type="checkbox"/> 6 2																														
surged with block, bailed and pumped	<input type="checkbox"/> 7 0																														
compressed air	<input type="checkbox"/> 2 0																														
bailed only	<input type="checkbox"/> 1 0																														
pumped only (with surging)	<input checked="" type="checkbox"/> 5 1																														
pumped slowly	<input type="checkbox"/> 5 0																														
Other _____	<input type="checkbox"/> _____																														
Before Development	After Development	24 hrs. later																													
84.60 ft	84.60 ft	84.45																													
Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20																														
Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25																														

Additional comments on development:

Callouts	0	994	1988	2982
T (°C)	12.7	10.9	10.6	10.9
pH (units)	8.31	8.97	8.82	8.02
cond. (µmhos)	528	517	494	515
Time	12:15	16:24	12:22	16:31
4 hrs @ min. 42 min. sample	(11-22)	(11-22)	(11-22)	(11-23)

Well to casing: -0.10
stick-up: 1.20
initial depth to: 199.52
bottom
final depth to: 199.53
bottom **199.53**

Well developed by: Person's Name and Firm

Name: **J. Jackson**

Firm: **ABB-ES**

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: **R. Jackson**

Firm: **ABB-ES**

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Started pumping @ 12:15 (11/22) @ 4 gpm
Total pumping time was 746 minutes (12 hrs 26 minutes) Stopped pumping @ 16:50 for total
flow of 275 min x 4 gpm = 1100 gpm on 11/22. Started pumping again @ 8:40 11/23. Sample point will
be @ 198 ft - 1100 gal = 886 gpm. 886/4 gpm = 222 min or 3 hrs 42 min + 8:40 = 12:22

Facility/Project Name BAAP - USATHAMA	Well Name SWN-91-05B
License, Permit or Monitoring Number -----	Vis. Unique Well Number -----
	DNR Well Number -----

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|---|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other | <input type="checkbox"/> | <div style="border: 1px solid black; width: 40px; height: 15px;"></div> |

3. Time spent developing well 660 min.4. Depth of well (from top of well casing) 115.4 ft5. Inside diameter of well 33 in. 33 in. ft.6. Volume of water in filter pack and well casing 33.3 gal.7. Volume of water removed from well 1660.0 gal.8. Volume of water added (if any) 500.0 gal.
(during installation)9. Source of water added BAAP production well #210. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)11. Depth to Water
(from top of well casing)

Before Development

After Development

85.31 ft85.31 ft ^{24 hrs.}
85.3

Date

10/17/91
m m d d y y10/17/91
m m d d y y ¹⁷⁻⁵
_{10-1 11}

Time

2:15 ☒ a.m.
☐ p.m.7:15 ☐ a.m.
☒ p.m.

12. Sediment in well bottom

____ inches

____ inches

13. Water clarity

Clear ☐ 10Turbid ☒ 15

(Describe)

Clear ☒ 20Turbid ☐ 25

(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

____ mg/l

____ mg/l

15. COD

____ mg/l

____ mg/l

16. Screen length

10.0 ft.turn over
for calculations →

Additional comments on development	1620	1915
Initial	1300	1235 gal
T (°C)	12.1	12.9
pH (units)	7.2	7.2
cond. (µmhos)	693	693
	705	694

- counted volume up to 110 gal. Then
started timing at 0950 at @ 3 gal/min.
(max. functioning @ 300 Hz)

well to casing: -.13 -.18
stick-up: 2.6± 2.6±initial depth to: 115.37
bottomfinal depth to: 115.41 115.43
bottom

Well developed by: Person's Name and Firm

Name: Nancy Roka/Vicki MillerFirm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: Nancy E. RokaFirm: ABB-ES

(150) Still pumping 3 gal/min. At this time we've pumped 410 gal.
(150) Pump purging at 2.5 gal/min. (act. 1 Hz or will overload converter/pump)
NOTE: Shaded areas are for DNR use only. See instructions for more information.

(165) Pump still purging at 2.5 gal/min. We've pumped 1235 gal.

(1815) Pump still purging at 2.5 gal/min. Freq. = 326 Hz

+ #111 - Ground-Fas Redi-Flow 2 w/ brass straining cloth and 3/8" ID tubing

Facility/Project Name <u>SUN-91-05C</u>	Well Name <u>BAAP- USATHAMA</u>
License, Permit or Monitoring Number _____	Wis. Unique Well Number: _____ DNR Well Number: _____

 1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-----|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | |

 3. Time spent developing well 1110 min.

 4. Depth of well (from top of well casing) 149.1 ft.

 5. Inside diameter of well 3.3 in. ft.

 6. Volume of water in filter pack and well casing 60.5 gal.

 7. Volume of water removed from well 3300.0 gal.

 8. Volume of water added (if any) 1000.0 gal.

 9. Source of water added BFW #2

 10. Analysis performed on water added? ☒ Yes ☐ No
(If yes, attach results)

Additional comments on development:

	initial	1329	2160	2310	3300
T (°C)	11.1	12.1	12.5	13.8	
pH (units)	7.86	6.7	7.2	7.6	
cond. (µmhos)	413	633	627	681	
Time	0752	1515	1558	1620	
Date	10-20-91	10-20-91	10-20-91	10-21-91	

11. Depth to Water (from top of well casing)

Before Development	After Development	24 hrs later
<u>85.56</u> ft.	<u>85.65</u> ft.	<u>85.59</u>

Date

<u>10/20/91</u>	<u>10/21/91</u>	<u>10-22-91</u>
m m d d y y	m m d d y y	

Time

<u>7:37</u> a.m.	<u>4:20</u> p.m.	<u>1730</u>
<input checked="" type="checkbox"/> a.m.	<input checked="" type="checkbox"/> p.m.	

12. Sediment in well bottom

_____ inches	_____ inches
--------------	--------------

13. Water clarity

Clear <input type="checkbox"/> 10	Clear <input checked="" type="checkbox"/> 20
Turbid <input checked="" type="checkbox"/> 15	Turbid <input type="checkbox"/> 25
(Describe)	(Describe)

cloudy

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l	_____ mg/l
------------	------------

15. COD

_____ mg/l	_____ mg/l
------------	------------

16. Screen length

10.0 ft.

 17. Used Grout for Reel Flo 3 pump w/
ballast paper straining cloth over intake

 well to casing: -.07

 stick-up: 2.4 ±
-.07 2.4 ± + 3/8" ID tubing

 initial depth to: 149.10
bottom

 final depth to: 149.12
bottom

149.09

*No concrete collar yet

Well developed by: Person's Name and Firm

 Name: N. Roka / V. Miller

 Firm: ABB-ES

I hereby certify that the above information is true and correct to the best of my knowledge.

 Signature: Nancy E. Roka

 Firm: ABB-ES

Started pumping 10-20-91 at 0750 (3 gpm) at top of H₂O column.
(0820) Pumped out standing H₂O. Lowered pump to bottom well. Surged for at 1/2 hr.
NOTE: Shaded areas are for DNR use only. See instructions for more information. Pulling very turbid, the cloudy (silty) H₂O.
(1150) Pump still running at 3 gpm more surging.
(1420) Started surging (still 3 gpm). Brought up a lot of silt and fine sand.
(1510) End surging much less (slightly cloudy) silt, still getting fine sand. 3 gpm.
(1510) Started developing for day. Still 3 gpm. Time spent filling gas (40 min), purged to h₂o/1800 gal.
(1510) Started developing for day. Still 3 gpm. Time spent filling gas (40 min), purged to h₂o/1800 gal.

Facility/Project Name <u>USA TITAMA / BAPP</u>	Well Name <u>SWN-91-05D</u>
License, Permit or Monitoring Number -----	Vis. Unique Well Number: _____ DNR Well Number: _____

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

- | | | |
|--------------------------------------|-------------------------------------|-----|
| surged with bailer and bailed | <input type="checkbox"/> | 4 1 |
| surged with bailer and pumped | <input type="checkbox"/> | 6 1 |
| surged with block and bailed | <input type="checkbox"/> | 4 2 |
| surged with block and pumped | <input type="checkbox"/> | 6 2 |
| surged with block, bailed and pumped | <input type="checkbox"/> | 7 0 |
| compressed air | <input type="checkbox"/> | 2 0 |
| bailed only | <input type="checkbox"/> | 1 0 |
| pumped only (with surging) | <input checked="" type="checkbox"/> | 5 1 |
| pumped slowly | <input type="checkbox"/> | 5 0 |
| Other _____ | <input type="checkbox"/> | |

3. Time spent developing well 2285 min.

4. Depth of well (from top of well casing) 202.9 ft

5. Inside diameter of well 4 in.

6. Volume of water in filter pack and well casing 99 gal

7. Volume of water removed from well 7995.0 gal

8. Volume of water added (if any) 2500.0 gal

9. Source of water added PW-2

10. Analysis performed on water added? ☐ Yes ☒ No
(If yes, attach results)

Additional comments on development:

	<u>10</u>	<u>2665</u>	<u>5332</u>	<u>7995</u>
T (°C)	11.3	11.6	12.0	9.3
pH (units)	7.45	7.46	7.70	7.28
cond. (µmhos)	658	636	675	722

11. Depth to Water (from top of well casing)

Before Development

After Development

24' 5"

86.18 ft

90.96 ft - 5.5'
85.96 85.1'

Date

10/27/91
m m d d y y

11/06/91 11/4/91
m m d d y y

Time

08:00 ☒ a.m. ☐ p.m.

16:45 ☐ a.m. ☒ p.m. 16:35

12. Sediment in well bottom

_____ inches

_____ inches

13. Water clarity

Clear ☒ 10
Turbid ☐ 15
(Describe)

Clear ☒ 20
Turbid ☐ 25
(Describe)

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids

_____ mg/l

_____ mg/l

15. COD

_____ mg/l

_____ mg/l

16. Screen length

10.0 ft

17. Pump used was Grunfos Redi-Flow 2 w/ brass straining cloth

well to casing: -0.18

stick-up: 2.62

1.18

initial depth to bottom: 202.93

final depth to bottom: 202.95

202.96

Well developed by: Person's Name and Firm

Name:

Pete A. Duwa

Firm:

ABB ENVIRONMENTAL

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature:

Pete A. Duwa

Firm:

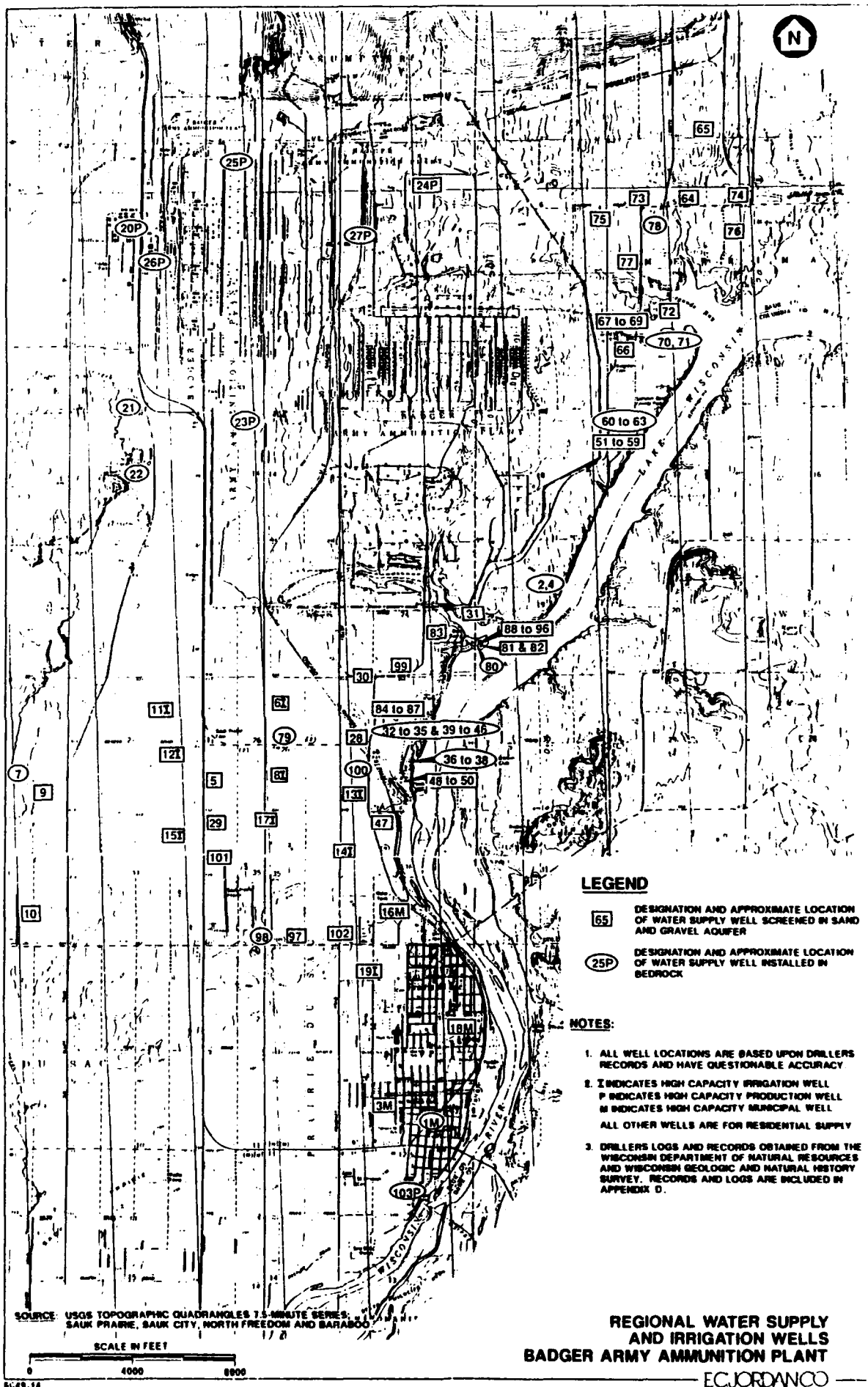
ABB ENVIRONMENTAL

2025 gal left

NOTE: Shaded areas are for DNR use only. See instructions for more information.

Appendix D.5
Regional Water Supply Well Logs

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WATERWORKS WELL, SAUK CITY, WIS.

C, NE, SW 1/4, NE 1/4, Sec. 12, T. 9, R. 6 E., Sauk Co.

L.P. O'Connors, Driller

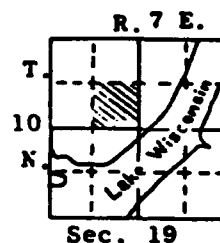
Completed, May, 1921

Samples examined by F.T. Thwaites, U.W. Nos. 53365-53397

Elevation 753' ETM

OUTWASH		0-4	Soil, no samples	176 ground water level/ Flow 401 g.p.m. Pressure 14 1/2 lb. down
		4-10	Gravel, no samples	
		10-100	Sand, light gray, no samples	
EAU CLAIRE	128	100-124	Quicksand, no samples	160 water rose 1'
		124-128	Sand and colored gravel, no samples	
		128-130	Sandstone, "honeycomb", no samples	
		130-134	Shale, no sam	
		134-140	Blue magnesian lime - blue limy shale, no samples	
		140-160	Sandstone, fine, gray, black spots, no samples	
		160-180	Sandstone, very hard, white, no samples	
		180-220	Shale, blue, no samples	
		220-234	"Quartzite", very hard, no samples	
		234-244	Sandstone, fine, gray, hard, mica, no samples	
		244-249	Sandstone, fine, gray, limy, some gray, limy shale	
		249-250	Shale, gray, hard, part no lime; soft, limy	
MT. SIMON	172	250-256	So. very fine to fine, gray, limy, sh. as above; sh. & sh. & sh.	First rise of water
		256-300	Sandstone, very fine, gray, limy	
		300-305	Sandstone, medium to fine, gray	
		305-332	Sandstone, fine, gray, limy; streaks of gray, limy shale	
		332-335	Sandstone, coarse to very fine, gray, limy; gray shale	
		335-345	Sh. fine to very fine, gray, brittle, hard shelling, & gravelly	
		345-352	Sandstone, fine, gray; gray shale layers	
		352-375	Sandstone, medium to fine, gray, limy	
		375-400	Shale, gray, top mainly not limy, bottom, soft, "spongy" and limy	
		400-420	Sandstone, fine to very coarse, gray	
		420-480	Sandstone, medium to coarse, gray with pink grains	
PRE-CAMB.		480-485	Sandstone, coarse to medium, gray, limy, soft	400 Second rise of water
		485-496	Sandstone, very coarse to medium, yellowish gray, mica	
		496-503	Sandstone as above. big flow of water	
		503-520	Sandstone, coarse to fine, light yellowish gray, outcrops	
	223	520-523	Sandstone, fine above, some limy. Feldspar grains	
		523-525	Granite, pink (quartz, feldspar, mica)	
				400 Flow increased 45 g.p.m. for every ft

Well name U.S. Dairy Forage Research Center Test Hole County: Sauk
Town of Merrimac Completed... 1979
Owner.... U.S. Dairy Forage Research Center Field check.
Address.. Route 1 Altitude.... 860' ETM
Prairie du Sac, WI 53578 Use..... Test
Driller.. Ace Well Drilling, Inc. Static w.l..
Engineer. Carl C. Crane, Inc. Spec. cap...



Quad. Sauk City 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
Grout: Kind												from	to

Samples from 0 to 400' Rec'd: 5/25/79 Studied by: Kathleen Massie Issued: 2/2/82
Formations: Surface, Drift, Eau Claire Formation
Remarks: For final well see J139-Sk-198.

LOG OF WELL:

	Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
					Mode	Range	
Sfc.	0-5		Soil	Dark yl bn	—	—	Trace organic material.
10'	5-10		"	Yellow bn	—	—	—
D R I F T	10-15		Gravel	Mxd yl bn	Gran	Gran/S peb	Dolomite, oolitic chert, trp, chert, qtz, Mch and, ltl st, cl.
	15-20		"	"	S peb	Gran/M peb	Dol, grnt, chert, glaucic ss, quartz, Much silt, clay, ltl and.
	20-25		"	"	"	"	Dol, chert, glaucic ss, quartz, trap, Much sand, silt, clay.
	25-30		"	"	"	"	Same plus oolitic chert.
	30-35		Gyl & clay	"	M peb	Gran/A peb	Dolite (clay), Dol, silicified ss, chert, trp, qtz, Much sand, st.
	35-40		"	"	"	"	Same.
	40-45		"	"	S peb	"	Same plus oolitic chert.
	45-50		"	"	"	"	Same.
	50-55		"	"	"	Gran/M peb	"
	55-60		"	"	Gran	"	"
	60-65		Clay	Red Yellow	—	—	Dolomitic, Much gravel, sand, silt.
	65-70		"	"	—	—	Same.
	70-75		Gravel	Mxd yl bn	S peb	Gran/S peb	Dolomite, glaucic ss, chert, trap, quartz, Much sand, silt, cl.
	75-80		"	"	"	"	Same but little silt, clay.
	80-85		"	"	"	"	Dolomite, glaucic ss, chert, trap, quartz, Mch and, ltl st, cl.
	85-90		"	"	Gran	"	Same plus granite.
	90-95		Sand	Lt yl bn	M	Vfn/VC	Much gravel, little silt, clay.
	95-100		"	"	"	"	Same.
	100-105		"	"	"	"	"
	105-110		"	"	C	"	Much gravel, silt, clay.
	110-115		"	"	M	"	Much gravel, little silt, clay.
	115-120		"	"	"	"	Same.
	120-125		"	"	"	"	Much silt, little clay, Trace gravel.
	125-130		"	"	"	"	Same.
	130-135		"	"	"	"	Much silt, clay, Trace gravel.
	135-140		"	"	C	"	Same.
	140-145		"	"	M	"	Little gravel, silt, Trace clay.
	145-150		"	"	C	"	Much gravel, little silt, Trace clay.
	150-155		"	"	"	"	Same.
	155-160		"	"	VC	"	Much gravel, silt, little clay.

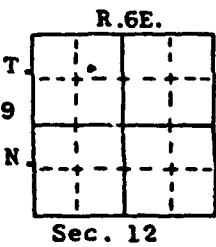
Well name: U.S. Dairy Forage Research Center Test Hole

	Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
					Mode	Range	
D R I F T	160-165		Sand	Lt yl bn	C	Vfn/VC	Much gravel, silt. Little clay.
	165-170		"	"	"	"	Same.
	170-175		"	"	"	"	Much gravel, Little silt, Trace clay.
	175-180		"	"	"	"	Little gravel, silt.
	180-185		"	"	"	"	Same.
	185-190		"	"	M	"	Few granules, Little silt.
	190-195		"	"	C	"	Many granules, Little silt.
	195-200		"	"	"	"	Few granules, Little silt.
	200-205		"	"	M	"	Same.
	205-210		"	"	"	"	Much gravel, silt, Little clay.
	210-215		"	"	C	"	Same.
	215-220		"	"	M	"	Many granules, Much silt, clay.
	220-225		Gravel	Mxd brown	Gran	Gran/S peb	Granite, dolomite, quartz, trap, chert, Much sand, silt, clay.
	225-230		"	"	"	"	Same.
	230-235		Sand	Lt yl bn	C	Vfn/VC	Much silt, Few granules, Little clay.
	235-240		"	"	"	"	Much silt, clay, Trace gravel.
	240-245		Gravel	Mxd brown	Gran	Gran/S peb	Granite, dolomite, quartz, trap, chert, Much sand, Little silt.
	245-250		Sand	"	C	Vfn/VC	Much gravel, silt, clay.
	250-255		Sandstone	Gray	M	Vfn/VC	Rnd to well rnd, Mch dolc cem, Mch dolc sh, Tr pyr, g.l.
	255-260		Shale & ss	"	Fn	"	Dolic(shale), Rnd, Trace pyrite, iron staining, iron staining.
E A U C I R E F M	260-265		"	Lt bn gry	"	"	Same.
	265-270		"	"	"	"	"
	270-275		Shale	Gray brown	—	—	Dolomitic, Trace pyrite, Much sand, Trace iron staining.
	275-280		"	"	—	—	Same.
	280-285		"	Lt gry bn	—	—	Dolomitic, Trace sand, pyrite, iron staining.
	285-290		"	"	—	—	Same.
	290-295		"	"	—	—	Dolomitic, Little sand, Trace pyrite, iron staining.
	295-300		"	"	—	—	Same.
	300-305		"	"	—	—	Dolomitic, Much sand, iron staining, Trace pyrite.
	305-310		"	"	—	—	Same.
	310-315		"	Gray brown	—	—	"
	315-320		"	"	—	—	"
	320-325		"	"	—	—	"
	325-330		"	"	—	—	Dolomitic, Much iron staining, Little sand, Trace pyrite.
	330-335		Shale & ss	Dark gray	Fn	Vfn/VC	Dolic (shale), Rnd, Lt1 dol cem, Trace pyrite, iron staining.
	335-340		"	"	"	"	Dolic (sh), Rnd, Mch V 6 dol cem, Tr pyr cem, Tr pyr.
	340-345		"	"	"	"	Same, iron staining, fossil molds (?).
	345-350		"	"	"	"	"
	350-355		"	"	"	"	"
	355-360		"	"	M	"	"
150	360-365		"	"	"	"	Dolic(sh), Mxd lt&dk gry sh, Rnd, Mch V 6 dol cem, Tr pyr cem.
	365-370		"	"	"	"	Same but lt1 M dol, Tr pyr, M dol, Fe stng, foss molds(?).
	370-375		"	"	"	"	Same.
	375-380		"	"	"	"	"
	380-385		"	"	"	"	"
	385-390		"	"	"	"	"
	390-395		"	"	"	"	Dolic (sh), Mxd lamntd lt&dk gry sh, Rnd, Lt1 V 6 dol cem,
	395-400		"	"	"	"	Same, Tr pyr cem, pyr, fonly diasser pyr, Fe stng, foss molds(?), but slightly less shale.

END OF LOG

Well name Sauk City Village Well.#3
 Prairie du Sac Township
Owner.... Village of Sauk City
Address.. 806 Water Street
 Sauk City, WI 53583
Driller.. Layne-Northwest Co.
Engineer.

County: Sauk
Completed... 11/75
Field check. 760'
Altitude.... 762' ETM
Use..... Municipal
Static w.l.. 27'
Spec. cap... 125 GPM/ft



Location: NW, SE, SE, SE, SE, SW, NE, NW, sec.12, T.9N., R.6E. Quad. Sauk City 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt.& Kind	from	to	Dia.	Wgt.& Kind	from	to
44"	0	141'				36"	A53 3/8" wall welded	0	80'	18"	Stainless steel	81'	141'
						18"	A53 3/8" wall welded shutter screen	+3.5'	81'				
Grout: Kind												from	to
Ready Mix												0	77 1/2'
Neat Cement												77 1/2'	79 1/2'
Sand Pad												79 1/2'	80'

Samples from 0 to 140' Rec'd: 11/10/75 Studied by: Mark Ver Hoeve Issued: 8/4/78

Formations: Alluvium

Remarks: Well tested 12 hours at 2005 GPM with 16 feet of drawdown. Driller reports total well depth of 141'. Well drilled by reverse rotary.

LOG OF WELL:

	Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
					Mode	Range	
ALLUVIUM	0-15			NO SAMPLE.			
	15-20		Sand	lt yl bn	C	Vfn/VC	Little gravel. Trace silt.
	20-25		Gravel	Mixed	S pob	Gran/M pob	Dolomite, granite, trap, chert, coillite, quartz. Much sand.
	25-30		Sand	Med v plbn	C	Vfn/VC	Little gravel. Trace silt.
	30-35		"	"	"	"	Same.
	35-40		"	"	"	"	"
	40-45		"	"	"	"	"
	45-50		Gravel	Mixed	S pob	Gran/L pob	Dolo,grnt,trap,rhyol porphyry,chert,quartz. Little sand.
	50-55		"	"	"	"	Dol, chert, dol-cemtd ss, qtz, grnt, trap, rhyol perph, st, Med s.d.
	55-60		Sand	Med v pl bn	C	Vfn/VC	Trace granules, silt.
	60-65		"	"	"	"	Trace gravel, silt.
	65-70		"	"	"	"	Trace granules, silt.
	70-75		"	"	"	"	Same.
	75-80		"	"	"	"	Little gravel. Trace silt.
	80-85		"	"	"	"	Same.
	85-90		"	"	"	"	"
	90-95		"	"	"	"	"
	95-100		"	"	"	"	"
	100-105		"	"	"	"	Trace granules, silt.
	105-110		Sand	Med v plbn	C	Vfn/VC	Trace gravel, silt.
	110-115		"	"	"	"	Same.
	115-120		"	"	"	"	"
	120-125		"	"	"	"	"
	125-130		"	"	"	"	"
	130-135		"	"	"	"	"
	135-140		"	"	"	"	"
END OF LOG							

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

Received Nov. 10 1979 SK-193
WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 12-76
J139 4

COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Merriman</u>	
1. LOCATION <u>1/4 NW 1/4</u>		Section <u>19</u> Township <u>10N</u> Range <u>7E</u>		3. NAME <input type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>North Central Dairy Farms</u>	
2. OR - Grid or Street No.		Street Name <u>Hy 78</u>		ADDRESS <u>Research Center</u> WELL #1 POST OFFICE <u>Baraboo Wis.</u>	
AND - If available subdivision name, lot & block No. <u>PERMAN. WELL #85821</u>					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building		Sanitary Bldg. Drain	
		Sanitary Bldg. Sewer		Floor Drain Connected to:	
		C.I. Other		C.I. Sewer Other Sewer	
		C.I. Other		C.I. Other	
Street Sewer		Other Sewers		Foundation Drain Connected to:	
1. Storm		C.I. Other		Sewage Sump	
				Clearwater Dr.	
				Clearwater Sump	
Privy		Pet Waste Pit		Pit: Nonconforming Existing	
				Subsurface Pumproom	
				Nonconforming Existing	
				Barn Gutter	
				Animal Barn Pen	
				Animal Yard	
				Silo: With Pit	
				Glass Lined Storage Facility	
				Silo w/o Pit	
				Earthen Silage Storage Trench Or Pit	
7. Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure	
				Subsurface Gasoline or Oil Tank	
				Waste Pond or Land Disposal Unit (Specify Type)	
				Other (Give Description) <u>SAUK Co. Misc. #10</u>	
5. Well is intended to supply water for: <u>Research Center</u>					
9. FORMATIONS					
Kind				From (ft.) To (ft.)	
1. <u>Clay</u>				Surface 5	
2. <u>Sandy Clay</u>				5 15	
3. <u>Hard & gravel</u>				15 70	
4. <u>sand fine gravel</u>				70 190	
5. <u>sand & coarse gravel</u>				190 263	
6. <u>Sandstone</u>				263 570	
7. <u>Rock with shale</u>				570 575	
8. <u>Granite</u>					
9. <u>Red Rock</u>					
APPROVAL DATE: SEPT. 20 1979					
10. TYPE OF DRILLING MACHINE USED					
<input type="checkbox"/> Cable Tool		<input checked="" type="checkbox"/> Rotary-hammer w/drilling mud & air		<input type="checkbox"/> Jetting with	
<input type="checkbox"/> Rotary-air w/drilling mud		<input type="checkbox"/> Rotary-hammer & air		<input type="checkbox"/> Air	
<input type="checkbox"/> Rotary-w/drilling mud		<input type="checkbox"/> Reverse Rotary		<input type="checkbox"/> Water	
8. GROUT OR OTHER SEALING MATERIAL					
Kind		From (ft.) To (ft.)			
<u>Cement & Water</u>		Surface 270			
MISCELLANEOUS DATA					
Yield Test: <u>20</u>		Hrs. at <u>330</u>		GPM	
Depth from surface to normal water level <u>51</u>		Ft.		Well construction completed on <u>11-4</u> 19 <u>79</u>	
Depth of water level when pumping <u>130</u>		Ft.		Well is terminated <u>36</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below	
Specific Capacity <u>4.2 gpm/ft.</u>		Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water sample sent to <u>S. H. H.</u>		laboratory on <u>11-7</u>		19 <u>79</u>	
Opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Merriman</u>			Complete Mail Address <u>Rt 4 Wills WI 53963</u>		

**WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL DRILLING DIVISION**

5
JUL 11 1942

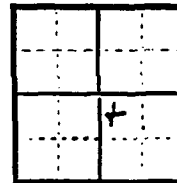
Note: Section 32 of the Wisconsin Well Drilling Sanitary Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner H. Stechelberg Driller W. H. Smith
Street or RFD R.F.D. Post Office Ellen
Post Office Prairie Du Sac Date Mar. 14 / 42 Permit No. 89

LOCATION OF PREMISES

Sauk County Town of Prairie Du Sac Town

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section.

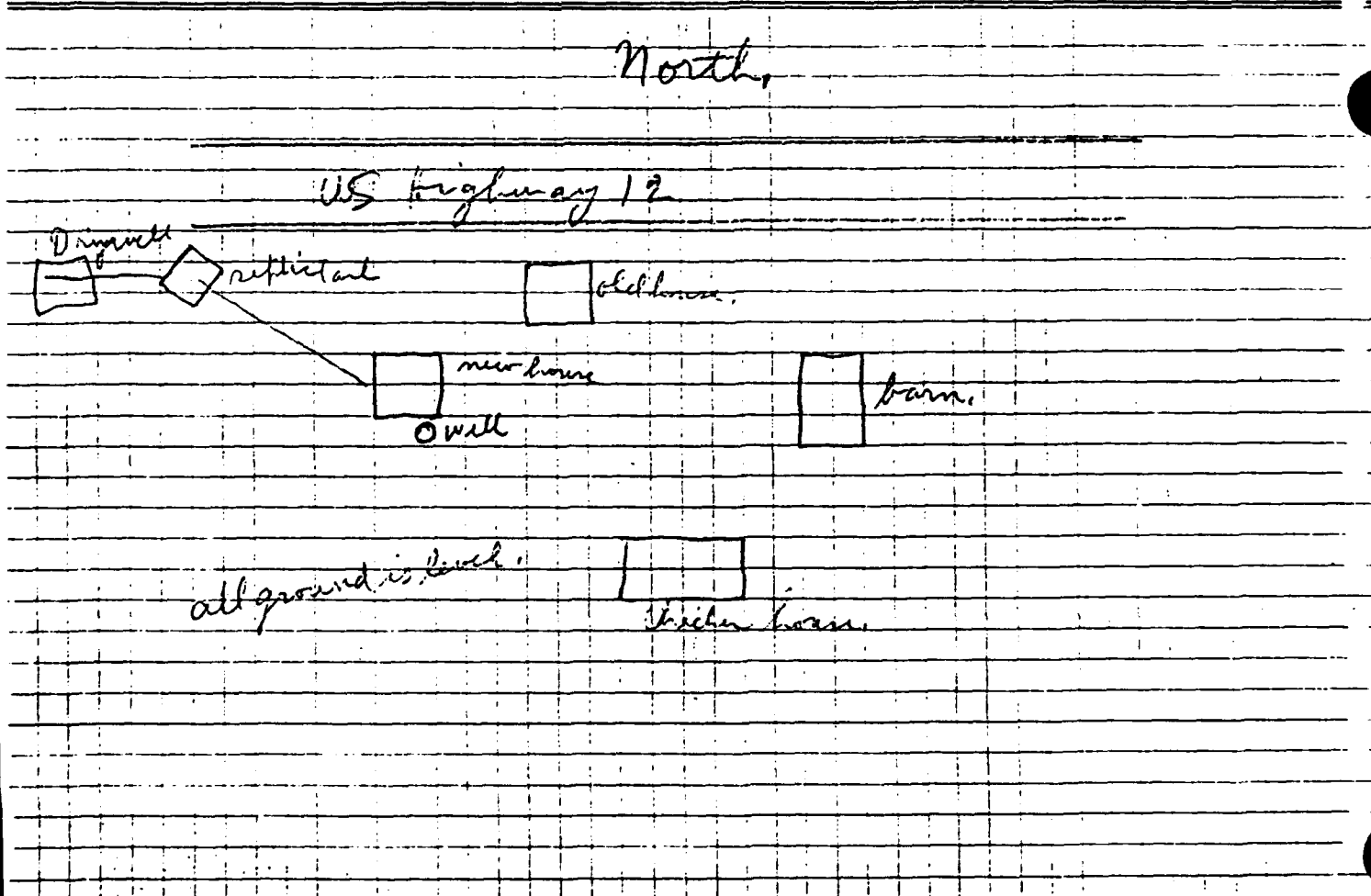


Sec. 26
Twp. 9 N
Range 6 E

Describe further by subdivision, plat, district, lake, lot,
on Highway U.S. 12
block, nearest principal highway, etc., whichever apply.

DIAGRAM OF PREMISES

See discussion and illustration in Part III Well Drilling Code. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.



WELL LOG and REPORT

In this column indicate the kind of casing, liner, shoe and other accessories used.

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

Record of
FINAL
Pumping test

6 in Well Drillers
1 ft used with
Drive shoe.

3 20 ft of cement.

Inches Diameter										Depth
2	3	4	5	6	8	10	12	14	16	
										5
										22
										25
										50
										75
										100
										112
										150
										200
										212
										400
										800
										1200

Draw the diagram to show the right half only

Top soil 5 ft.

Sand and Gravel
Dng. 112 ft.

Sand
water bearing

Gravel bed.

Duration of test

Hours 2 hrs.

Pumping rate

G.P.M. 350 G.P.M.

Depth of pump in

well. Ft. 120 ft.

Standing water-level
(from surface)

Ft. 76 ft.

Water-level when

pumping Ft. 86 ft.

Water. End of test.

Clear Clear

Cloudy

Turbid

Was the well sterilized?

Yes Yes No

To which laboratory was
sample sent?

Madison

Date

Was the well sealed on
completion?

Yes Yes No

How high did you leave the
casing-pipe above grade?

5 in above
pit floor.

Well was completed

Date Mar. 10

Well Driller

Wm. H. Smith
Signature

State
Department of
Private Water
Box 79
Madison, Wisconsin 53701

NOTE:

White Copy
Green Copy
Yellow Copy
Division's Copy
Driller's Copy
Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15

Rev. 1-79

6

JUN 10 1985

1. COUNTY Walworth CHECK (X) ONE: ☒ Town ☐ Village ☐ City Prairie Du Sac
2. LOCATION NE 1/4 Sec 5 E 26 T1N R6E 3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (X) ON
OR - Grid or Street No. Co. Hwy. Z ADDRESS E 11520 Hwy. Z Well # 3
AND - If available subdivision name, lot & block No. POST OFFICE Prairie Du Sac PERM # 2975
ZIP CODE

4. Distance in feet from well to nearest: (Record answer in appropriate block)
Building 1/4 Mi. Sanitary Bldg. Drain C.I. Other Sanitary Bldg. Sewer C.I. Other Floor Drain Connected To: C.I. Sewer Other Sewer Storm Bldg. Drain C.I. Other Storm Bldg. Sewer C.I. Other
Street: Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit Manure Hopper or Retention or Pneumatic Tank
San. Storm C.I. Other Sewer Sewage Sump Clearwater Sump Clearwater Sump Seepage Pit Seepage Bed Seepage Trench
Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit Earthen Manure Bar
Temporary Manure Stack or Platform Watertight Liquid Manure Tank or Basin Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls Other (Describe)

5. Well is intended to supply water for: Irrigation 9. FORMATIONS

5. DRILLHOLE
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)
20 Surface 187 20 Surface 156
20 Surface 187 20 Surface 156 - 187

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification
Dia. (in.) Mfg. & Method of Assembly From (ft.) To (ft.)
14 PE 250 W-11 Surface 156
14 Johnson's Screen 156 187
Approval date: June 21, 1985
File location: Prairie Du Sac
cc: State Geologist

10. TYPE OF DRILLING MACHINE USED
☐ Cable Tool ☐ Rotary-hammer w/drilling mud & air ☐ Jetting with ☐ Air ☐ Water
☒ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Reverse Rotary
☐ Rotary-w/drilling mud

GROUT OR OTHER SEALING MATERIAL
Kind From (ft.) To (ft.)
Drill Cutting's Surface 147
Gravel Pack 147 187
Y. MISCELLANEOUS DATA SC. = 40.9 GPM/FT
Yield Test: 10 Hrs. at 1000 GPM
Depth from surface to normal water level 80 Ft.
Depth of water level when pumping 91 Ft. Stabilized ☒ Yes ☐ No
Well construction completed on 7-10 19 85
Well is terminated 14 inches ☒ above final grade ☐ below
Well disinfected upon completion ☐ Yes ☒ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to _____ laboratory on _____ 19 _____
Our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature Tom P. P. Business Name and Complete Mailing Address PT 2 SP. Co.

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

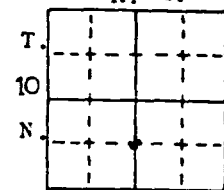
WELL CONSTRUCTOR'S REPORT
Form 3300-15
JAN 25 1984
Rev. 2-79

1. COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Ernie A. J. J.</u>	
2. LOCATION <u>Rt 14 200 ft</u>		Section <u>28</u> Township <u>10N</u> Range <u>6E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Ernie A. J. J.</u>	
OR - Grid or Street No. Street or Road Name		ADDRESS <u>RR</u>		POST OFFICE <u>Platteville, Wis.</u> ZIP CODE <u>53578</u>	
AND - If available subdivision name, lot & block No.					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>15 ft</u>		Sanitary Bldg. Drain <u>38 ft</u>	
		Sanitary Bldg. Sewer <u>37 ft</u>		Floor Drain Connected To: <u>35 ft</u>	
		C.I. Other		C.I. Other	
		San. Storm C.I. Other		Sewage Sump Clearwater Sump	
		Sewer Sewage Sump Clearwater Sump		Holding Tank	
		Sewage Absorption Unit: Seepage Pit Seepage Bed Seepage Trench		Manure Hopper or Retention or Pneumatic Tank	
Privy Pit: Nonconforming Existing		Subsurface Pump Room		Barn Animal: Animal Silo	
Well Nonconforming Existing		Gutter Barn Pen Yard With Pit		Glass Lined Storage Facility	
Pump Tank				Silo w/o Pit Earthen Silage Storage Trench Or Pit	
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin		Manure Storage Basin: Concrete Floor Only Concrete Floor and Partial Concrete Walls	
Manure Pressure Pipe		Subsurface Gasoline or Oil Tank		Other (Describe)	
Waste Pond or Land Disposal Unit (Specify Type)					
5. Well is intended to supply water for: <u>Home</u>					
6. DRILLHOLE					
Dia. (in.) From (ft.) To (ft.)					
16 Surface 20					
16 20 239					
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification					
Dia. (in.) Mfg. & Method of Assembly From (ft.) To (ft.)					
6" New Standard Borehole Surface 229					
19.15" A120 A.F. Steel (Union, J.L. Swai, DE)					
8. GROUT OR OTHER SEALING MATERIAL					
Kind From (ft.) To (ft.)					
Drill Cuttings Surface 20					
10. TYPE OF DRILLING MACHINE USED					
<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with					
<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air					
<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water					
11. MISCELLANEOUS DATA					
Yield Test: <u>5</u> Hrs. at <u>25</u> GPM					
Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final grade					
Depth from surface to normal water level <u>50</u> Ft. Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Depth of water level when pumping <u>50</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Water sample sent to <u>Madison</u> laboratory on <u>June 1</u> 19 <u>83</u>					
opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of drilling the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>L. Verne Helshouer</u> Business Name and Complete Mailing Address <u>245 Park Ave Platteville, Wis.</u>					
Registered Well Driller					

Well name Lins Farms Well #2
Town of Prairie du Sac
Owner.... ~~Lins Farms~~ *KENNETH S. LINS*
Address... ~~Route 1~~ *E 11575 Hwy Z*
Prairie du Sac, WI 53578
Driller.. Ace Well Drilling, Inc.
Engineer.

County: Sauk

Completed... 8/4/79
Field check.
Altitude.... 835' ETM
Use..... Irrigation
Static w.l.. 79'
Spec. cap... 28 GPM/ft.



Sec. 26

LOCATION: JUST E OF CENTER, S 1/2, Sec. 26, T10N, R6E

Quad. Sauk City 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
17"	0	162'				14"	0.375 wall New pipe U.S.P. Johnson screen	+15"	137'				
								137'	162'				
Drilling method: Rotary										Grout		from	to
Samples from 0 to 161' Rec'd: 11/9/79										Drill cuttings		0	105'
Studied by: Teresa E. Handy										Gravel pack		105'	162'

Issued: 2/2/82

Formations: Surface, Drift

Remarks: Well tested for 4 hours at 800 GPM with 29 feet of drawdown.
DNR Permanent Well #29765 and Sauk Co. Irrigation #56.
Driller reports total well depth of 162'.

LOG OF WELL:

	Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
					Mode	Range	
Surf	0-5		Sand	Dk yl bn	C	Vfn/VC	Much clay. Little gravel, silt, soil.
	5-10		"	"	"	"	Same.
D R I F T	10-15		Gravel	Mixed	Gr	Gran/S peb	Grnt, dol, cht, qtz, sts, trap, silcem ss, fos dol. Mch snd. [tl st.
	15-20		"	"	S peb	Gran/M peb	Same plus glauconitic sandstone.
	20-25		"	"	"	"	Same plus limonite-cem ss but no glauconitic sandstone.
	25-30		"	"	"	"	Grnt, dol, cht, qtz, sts, trap, glaucic ss, silcem ss, ool cht. Mch snd.
	30-35		"	"	"	"	Same. [tl st, Tr cl.
	35-40		"	"	"	"	Same but no glauconitic sandstone, clay.
	40-45		Sand	Yl brown	C	Vfn/VC	Much gravel (Gran/M peb). Little silt.
	45-50		Gravel	Mixed	S peb	Gran/M peb	Dol, fos dol, cht, grnt, silcem ss, ool cht, sts, qtz, trap, glaucic ss.
	50-55		"	"	"	"	Same plus trace clay & trace cvd soil but no glaucic ss. Mch snd.
	55-60		"	"	"	"	Same but no soil. [tl st.
	60-65		"	"	"	"	Same plus limonite-cem sandstone but no oolitic chert.
	65-70		Sand	Yl brown	C	Vfn/VC	Much gravel (Gran/M peb). Little silt.
	70-75		"	"	"	"	Much gravel (Gran/S peb). Little silt.
	75-80		"	"	"	"	Same.
	80-85		"	"	"	"	"
	85-90		"	"	VC	"	Much gravel (Gran/M peb). Little silt.
	90-95		"	"	C	"	Much gravel (Gran/S peb). Little silt.
	95-100		"	"	VC	"	Same.
	100-105		Gravel	Mixed	S peb	Gran/M peb	Dol, fos dol & cht, ool cht, grnt, sts, qtz, silcem ss, trap. Mch snd.
	105-110		"	"	"	"	Same plus limonite-cemented sandstone. [tl st.
	110-115		Sand	Yl brown	VC	Vfn/VC	Much gravel. Little silt.
	115-120		Gravel	Mixed	S peb	Gran/M peb	Dol, fos dol, cht, ool cht, silcem ss, qtz, lim-cem ss, s, grnt, trap.
	120-125		"	"	"	"	Same but no limonite-cemented sandstone. Mch snd. [tl st.
	125-130		"	"	"	"	Same plus glauconitic ss.
	130-135		Sand	Yl brown	VC	Vfn/VC	Much gravel. Little silt.
	135-140		"	"	"	"	Same.
	140-145		"	"	"	"	"
	145-150		"	"	"	"	"
	150-155		"	"	"	"	"
151'	155-161		"	"	"	"	"

END OF LOG

1. CITY <u>Frank</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Prairie du Sac</u>													
2. LOCATION Section <u>SE</u> <u>26</u> Township <u>10 N</u> Range <u>6 E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Line Farm WELL #2</u>															
Grid or Street No. <u>ACTUALLY CENTER OF S$\frac{1}{2}$, S26</u> Street Name		ADDRESS <u>#1 PERMAN WELL #29765</u>															
ND - If available subdivision name, lot & block No.		POST OFFICE <u>Prairie du Sac MO 653578</u>															
4. Distance in feet from well nearest: (Record sewer in appropriate block)		Building		Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer					
		C.I. Other		C.I. Other		C.I. Sewer Other Sewer		C.I. Other		C.I. Other		C.I. Other					
Steel Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Sump		Clearwater Sump		Septic Tank		Holding Tank		Sewage Absorption Unit			
San. Storm C.I. Other		Sewer Clearwater Dr. Sewage Sump Clearwater Sump		C.I. Other										Seepage Pit Seepage Bed Seepage Trench			
Pet Waste Pit		Pit: Nonconforming Existing Well Pump Tank		Subsurface Pumproom Nonconforming Existing		Barn Gutter		Animal Barn Pen		Animal Yard		Silo With Pit		Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit			
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description) <u>SAUK CO. IRRIG. #56</u>							
5. Well is intended to supply water for: <u>Irrigation</u>						9. FORMATIONS						Kind		From (ft.)		To (ft.)	
6. DRILLHOLE						D (in.)						From (ft.)		To (ft.)			
17						Surface						162					
7. L. LINER, CURBING AND SCREEN						Material, Weight, Specification & Method of Assembly						From (ft.)		To (ft.)			
11						6.375 Wall						Surface		137			
						Man-Pipe											
						U.S.P.											
						137						162					
8. ROUT OR OTHER SEALING MATERIAL						Kind						From (ft.)		To (ft.)			
Drill Cuttings						Surface						165					
Drill Shank						165						162					
1 MISCELLANEOUS DATA						Yield Test: <u>800</u> Hrs. at <u>800</u> GPM						Well is terminated <u>15</u> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final grade					
Depth from surface to normal water level <u>79</u> Ft.						Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Depth of water level when pumping <u>108</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No						Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Water sample sent to <u>27.6 gpm/ft = Spec. Lab.</u> laboratory on <u>12-10</u> 19 <u>80</u>																	
Signature <u>777 amir 777</u> Registered Well Driller						Complete Mail Address <u>PO Box 112, MO 65357</u>											

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 12-76

ADD 3 325

9

1. COUNTY <u>Dane</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Prairie Du Sac</u>	
2. LOCATION <u>SW 1/4 SE 1/4</u> Section <u>28</u> Township <u>10 N</u> Range <u>6 E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Donald F. Rommung</u>			
OR - Grid or Street No. _____ Street Name _____		ADDRESS <u>Rt #1 Box 305</u>			
AND - If available subdivision name, lot & block No. _____		POST OFFICE <u>Prairie Du Sac Wisc.</u> <u>53578</u>			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>25'</u>		Sanitary Bldg. Drain C.I. _____ Other _____	
		Sanitary Bldg. Sewer C.I. _____ Other _____		Floor Drain Connected To: C.I. Sewer _____ Other Sewer _____	
		Storm Bldg. Drain C.I. _____ Other _____		Storm Bldg. Sewer C.I. _____ Other _____	
Street Sewer _____		Other Sewers _____		Foundation Drain Connected to: Sewage Sump _____ Clearwater Dr. _____	
San. _____ Storm _____		C.I. _____ Other _____		Sewage Sump _____ Clearwater Sump _____	
Privy _____		Pet Waste Pit _____		Septic Tank _____ Holding Tank _____	
Pit: Nonconforming Existing _____		Subsurface Pumproom _____		Sewage Absorption Unit: Seepage Pit _____ Seepage Bed _____ Seepage Trench _____	
Well _____		Nonconforming Existing _____		Clearwater Sump _____	
Pump _____		Barn Gutter _____		Septic Tank _____	
Tank _____		Animal Barn Pen _____		Holding Tank _____	
Watertight Liquid Manure Tank _____		Animal Yard _____		Glass Lined Storage Facility _____	
Solid Manure Storage Structure _____		Silo With Pit _____		Silo w/o Pit _____	
Subsurface Gasoline or Oil Tank _____		Waste Pond or Land Disposal Unit (Specify Type) _____		Earthen Silage Storage Trench Or Pit _____	
Other (Give Description) _____					
5. Well is intended to supply water for: <u>Household</u>		9. FORMATIONS			
		Kind		From (ft.)	To (ft.)
6. DRILLHOLE		Diameter (in.)		From (ft.)	To (ft.)
Dia. (in.)		From (ft.)		To (ft.)	
Surface		Driven to		53'	
Pulled back to		50'			
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly		From (ft.)		To (ft.)	
Dia. (in.)		From (ft.)		To (ft.)	
6" PC welded		Surface		48'	
Dong Kuk					
Q & T M A120					
Johnson 1/2" 6" telescoping screen with mesh		50'		53'	
8. GROUT OR OTHER SEALING MATERIAL					
Kind		From (ft.)		To (ft.)	
Surface					
10. TYPE OF DRILLING MACHINE USED					
<input checked="" type="checkbox"/> Cable Tool		Rotary-hammer w/drilling mud & air		<input type="checkbox"/> Jetting with	
<input type="checkbox"/> Rotary-air w/drilling mud		Rotary-hammer & air		<input type="checkbox"/> Air	
<input type="checkbox"/> Rotary-w/drilling mud		Reverse Rotary		<input type="checkbox"/> Water	
Well construction completed on <u>Aug 15</u> 19 <u>74</u>					
Yield Test: <u>12</u> Hrs. at <u>30</u> GPM		Well is terminated <u>15</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>36</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>41</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <u>O.T.</u>			
Water sample sent to <u>State Lab of Hygiene</u> laboratory on <u>Feb 10</u> 19 <u>75</u>					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Sam Rodemsky</u> Registered Well Driller		Complete Mail Address <u>Rt #1 Arena Wisc 53503</u>			

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 2-79

MAY 17 1984

10

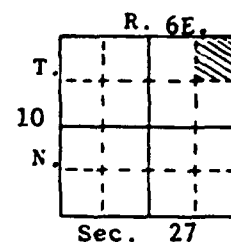
1. COUNTY <u>SAUK</u>		CHECK ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>PRAIRIE DU SAC</u>	
2. LOCATION Section <u>SE 1/4</u> Township <u>33</u> Range <u>10N 6E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (1) ONE <u>Gerard Bruenig</u>			
OR - Grid or Street No. _____ Street or Road Name _____		ADDRESS <u>R1</u>			
AND - If available subdivision name, lot & block No. _____		POST OFFICE <u>Prairie Du Sac, WI</u>		ZIP CODE _____	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>8</u>		Sanitary Bldg. Drain <u>C.I.</u> Other _____	
San. Storm C.I. Other		Sanitary Bldg. Sewer <u>C.I.</u> Other _____		Floor Drain Connected To: <u>C.I. Sewer</u> Other Sewer _____	
Foundation Drain Connected to: <u>Sewage Sump</u>		Clearwater Sump _____		Septic Tank Holding Tank _____	
Sewage Sump _____		Sewage Absorption Unit _____		Manure Hopper or Retention or Pneumatic Tank _____	
Clearwater Dr. _____		Seepage Bed <u>30</u>		Seepage Trench <u>60</u>	
Privy _____		Pit: Nonconforming Existing _____		Subsurface Pumproom _____	
Pet Waste Pit _____		Well _____		Barn Gutter _____	
Pump _____		Nonconforming Existing _____		Animal Barn Pen _____	
Tank _____		Animal Yard _____		Silo With Pit _____	
Temporary Manure Stack or Platform _____		Watertight Liquid Manure Tank or Basin _____		Manure Storage Basin _____	
Manure Pressure Pipe _____		Subsurface Gasoline or Oil Tank _____		Concrete Floor Only _____	
Waste Pond or Land Disposal Unit (Specify Type) _____		Concrete Floor and Partial Concrete Walls _____		Other (Describe) _____	
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind		From (ft.) To (ft.)	
Dia. (in.) From (ft.) To (ft.)		Dia. (in.) From (ft.) To (ft.)		Dia. (in.) From (ft.) To (ft.)	
<u>10</u> Surface <u>109</u>		<u>Sand & Fine Gravel</u>		Surface <u>109</u>	
7. CASING, LINER, CURBING AND SCREEN		Material, Weight, Specification			
Dia. (in.) Mfg. & Method of Assembly		From (ft.) To (ft.)		From (ft.) To (ft.)	
<u>6</u> Plain End, New Pipe		Surface <u>106</u>		Surface <u>106</u>	
<u>ASTM A132 18.75 lbs per ft</u>		<u>ASTM A132 18.75 lbs per ft</u>		<u>ASTM A132 18.75 lbs per ft</u>	
<u>Electric Metals</u>		<u>Electric Metals</u>		<u>Electric Metals</u>	
<u>6</u> Johnson Stainless Steel		<u>106</u>		<u>109</u>	
8. GROUT OR OTHER SEALING MATERIAL		Kind From (ft.) To (ft.)			
<u>Drilling Mud</u>		Surface <u>106</u>		Surface <u>106</u>	
11. MISCELLANEOUS DATA		Yield Test: <u>1</u> Hrs. at <u>15</u> GPM			
Depth from surface to normal water level <u>70</u> Ft.		Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth of water level when pumping <u>82</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>S. L. H.</u> laboratory on <u>5/2</u> 19 <u>84</u>		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Signature <u>Brian K. Hoff</u> Registered Well Driller		Business Name and Complete Mailing Address <u>Acc Well Drilling Inc.</u> <u>N 9889 - Hwy. 23</u> <u>Wisconsin Dells, WI 53933</u> <u>(800) 264-2722</u>			

11

Well name Kindschi's, Inc. Well #1
Prairie du Sac Township
Owner.... Kindschi's, Inc. c/o *SEBASTO KINDSCHI*
Address.. Route 1
Prairie du Sac, WI 53578
Driller.. Ace Well Drilling, Inc.
Engineer.

County: Sauk

Completed... 5/26/77
Field check. 830'
Altitude.... ETM
Use..... Irrigation
Static w.l.. 65'
Spec. cap... 22 GPM/ft



Location: C, NE, Sec. 27, T10N, R6E

Quad. Sauk Prairie 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
18"	0	140'				14"	P.E. new pipe U.S. ASTM A53 0.375 wall	+13"	115'		25 ft. Johnson screen 35 slot	115'	140'

Drilling method: rotary
Samples from 0 to 155' Rec'd: 7/6/77

Grout	from	to
drill cuttings	0	100'
Gravel pack	100'	140'

Studied by: Teresa E. Handy

Issued: 8/12/82

Formations: Surface, Outwash

Remarks: Well tested for 4 hours at 1000 GPM with 45 feet of drawdown.
Driller reports total well depth of 140'.
DNR Permanent Well #29750 and Sauk Co. Irrigation #44.

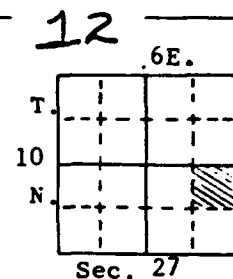
LOG OF WELL:

	Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
					Mode	Range	
Sfc.	0-5		Soil	Black	—	—	Trace organic material.
	5-10		"	Dk y1 bn	—	—	Same.
15'	10-15		"	V dk bn	—	—	"
O U T W A S H	15-20		Gravel	Mixed	S peb	Gran/S peb	Grnt, qtz, dol, cht, trp, lim-cemtd ss, silcemtd ss, fossif dol&cht.
	20-25		"	"	"	"	Same plus oolitic cht but no lim-cemented sandstone.
	25-30		"	"	"	"	Same plus siltstone but no caved soil.
	30-35		"	"	"	"	Same plus limonite-cemented sandstone.
	35-40		"	"	"	"	Grnt, qtz, dol, cht, trp, lim-cemtd ss, silcemtd ss, fossif dol&cht.
	40-45		"	"	"	"	Same but no fossiliferous chert.
	45-50		"	"	"	"	Same plus trace caved soil.
	50-55		"	"	"	"	Grnt, qtz, dol, cht, trp, fossif dol&cht, oolitic cht, Mch sand, 'tl st.
	55-60		"	"	"	"	Same plus silica-cemented sandstone but no oolitic chert.
	60-65		"	"	"	Gran/M peb	Same but no fossiliferous chert.
	65-70		"	"	"	"	Grnt, qtz, dol, cht, trp, fossif dol, oolitic cht, Mch sand, 'tl st.
	70-75		"	"	"	Gran/S peb	Same plus silica-cemented sandstone.
	75-80		Sand	Y1 brown	M	Vfn/VC	Few granules. Little silt.
	80-85		"	"	"	"	Same.
	85-90		"	"	"	"	Little silt. Trace granules.
	90-95		"	"	"	"	Same.
	95-100		"	"	C	"	"
	100-105		"	"	"	"	"
	105-110		"	"	"	"	"
	110-115		"	"	VC	"	"
	115-120		"	"	C	"	"
	120-125		"	"	"	"	"
	125-130		"	"	"	"	"
	130-135		"	"	"	"	"
	135-140		"	"	"	"	"
	140-145		"	"	"	"	"
	145-150		"	"	"	"	"
140'	150-155		"	"	"	"	"
END OF LOG							

Well name Art Mueller, Jr. Well
Town of Prairie du Sac
Driller... Art Mueller, Jr.
Address... ~~Rout 1~~ 59143 Hwy 12
Prairie du Sac, WI 53578
Driller... Ace Well Drilling, Inc.
Engineer.

County: Sauk

Completed... 1/28/78
Field check. 820'
Altitude... 981' ETM
Use... Irrigation
Static w.l... 65'
Spec. cap... 18 GPM/ft



SECTION: SE, SW, SW, SW, NE, NW, SE Sec. 27, T10N, R6E Quad. Sauk Prairie 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
17"	0	164'				12"	P.E. new pipe 0.375 ASTM A53 U.S.P.	+13"	144'	12"	screen	144'	164'
Drilling method: Rotary										Grout		from	to
Samples from 0 to 165' Rec'd: 2/6/80										Puddle Clay		0	120'
										Gravel Pack		120'	164'

Studied by: Sara T. Sauers

Issued: 1/12/82

Formations: Surface, Alluvium

Remarks: Well tested for five hours at 800 GPM with 45 feet of drawdown.
Driller reports total well depth of 164'.
DNR Permanent Well #29761 and Sauk Co. Irrigation #54.

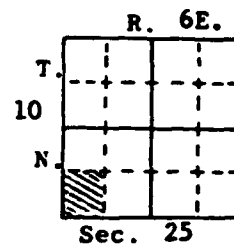
F WELL:													
	Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics						
					Mode	Range							
S	0-5		Soil	V dk bn	—	—							
	5-10		Sand	Yellow bn	C	Vfn/VC	Trace granules, silt, soil.						
	10-15		"	Dk yl bn	"	"	Much soil, Trace granules.						
	15-20		"	Mixed bn	"	"	Much gravel, Trace soil, silt.						
	20-25		"	Pale brown	"	"	Trace granules, silt.						
	25-30		"	"	"	"	Same.						
	30-35		"	"	"	"	Trace gravel (Gran/S peb), silt.						
	35-40		"	"	"	"	Trace gravel (Gran/S peb), silt, caved soil.						
	40-45		"	"	"	"	Little gravel, Trace silt.						
	45-50		Gravel	Mixed bn	Gran	Gran/M peb	Quartz, chert, grnt, metavolcs, trap, dol, ss. Much sand, Trace silt.						
A	50-55		"	"	"	"	Quartz, chert, limestone, dol, metavolcs, granite, trap, Lt l and Tr st.						
	55-60		Sand	Mxd pl bn	C	Vfn/VC	Much gravel, Trace silt.						
	60-65		Gravel	Mixed bn	Gran	Gran/M peb	Quartz, chert, dol, grnt, metavolcs, trap, sandstone, Lt l and Tr st.						
	65-70		"	"	"	"	Same.						
	70-75		"	"	"	Gran/S peb	Same but much sand.						
	75-80		"	"	"	"	Qtz, cht, dol, chert, granite, metavolcs, trap, dol. Mch and Tr st.						
	80-85		"	"	"	"	Qtz, cht, dol, granite, metavolcs, trap, Mch and Tr st. caved soil.						
	85-90		"	"	"	"	Same.						
	90-95		Sand	"	C	Vfn/VC	Much gravel, Trace silt.						
	95-100		"	"	"	"	Same.						
V	100-105		"	"	"	"							
	105-110		"	"	"	"							
	110-115		"	Lt yl bn	"	"	Trace silt.						
	115-120		"	"	"	"	Trace granules, silt.						
	120-125		"	Pale bn	"	"	Same.						
	125-130		"	"	"	"							
	130-135		"	"	"	"							
	135-140		"	"	"	"							
	140-145		"	"	"	"							
	145-150		"	"	"	"							
M	150-155		"	Lt yl bn	"	"	Trace silt.						
	155-160		"	"	"	"	Trace silt, caved soil.						
	160-165		"	"	"	"	Trace silt.						

END OF LOG

Well name Lloyd Mueller Well
Prairie du Sac Township
Owner.... Lloyd Mueller
Address... Route 1 89294 Hwy 78
Prairie du Sac, WI 53578
Driller.. Ace Well Drilling, Inc.
Engineer.

County: Sauk

Completed... 6/8/77
Field check.
Altitude.... 830' ETM
Use..... Irrigation
Static w.l... 83'
Spec. cap... 18.6 GPM/ft



LOCATION: NE, NW, NE, NW, SE, SW, SW: Sec. 36, T10N, R6E Quad. Sauk City 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
17"	0	158'				12"	new pipe 3/8 ASTM A53 Grade B	+13"	138'	12"	Johnson 35 slot screen	138'	158'
Drilling method: rotary Samples from 0 to 172' Rec'd: 7/6/77									Grout		from to		
Studied by: Teresa E. Handy									puddle clay		0 90'		
									Gravel pack		90' 158'		

Issued: 8/12/82

Formations: Surface, Outwash

Remarks: Well tested for 4 hours at 800 GPM with 43 feet of drawdown.
Driller reports total well depth of 158'.
DNR Permanent Well #29746 and Sauk Co. Irrigation # 40.

LOG OF WELL:

Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
				Mode	Range	
0-5		Soil	Black	—	—	Trace organic material.
5-10		"	Dk yl bn	—	—	Same.
10-15		Gravel	Mixed	S peb	Gran/M peb	Grnt,qtz, trp,cht,dol,fossif dol,sts,silcem ss,polic cht,Ltl and st.
15-20		"	"	"	"	Same plus trace clay.
20-25		"	"	"	"	Same plus fossiliferous chert but no oolitic chert. clay.
25-30		"	"	"	"	Grnt,qtz, trp,cht,dol,fossif dol,sts,silcem ss,polic cht,Mch and
30-35		"	"	"	"	Same plus fossif chert, limonite-cemented ss, iron fm. Ltl st.
35-40		Sand	Lt yl bn	C/VC	Vfn/VC	Little gravel (Gran/S peb), silt.
40-45		"	"	"	"	Same.
45-50		"	"	VC	"	"
50-55		"	"	"	"	"
55-60		"	"	"	"	Few granules. Little silt.
60-65		"	"	"	"	Same.
65-70		"	"	"	"	Little gravel (Gran/S peb), silt.
70-75		"	"	"	"	Few granules. Little silt.
75-80		"	Yellow bn	"	"	Same.
80-85		"	"	"	"	Little gravel (Gran/S peb), silt.
85-90		"	"	C	"	Same.
90-95		"	"	"	"	"
95-100		"	"	"	"	Little silt. Trace granules.
100-105		"	"	"	"	Same.
105-110		"	"	"	"	Few granules. Little silt.
110-115		"	"	"	"	Same.
115-120		"	"	VC	"	Little silt. Trace granules.
120-125		"	"	"	"	Few granules. Little silt.
125-130		"	"	"	"	Same.
130-135		"	Lt yl bn	C	"	"
135-140		"	"	"	"	Little silt. Trace granules.
140-145		"	"	"	"	Same.
145-150		"	"	"	"	"
150-155		"	"	"	"	"
155-160		"	"	"	"	"

W 1 name: Lloyd Mueller Well

Page 2 of 2

County: Sauk

Well name Melvin Bickford, Well #2
Town of Prairie du Sac
Owner.... Melvin Bickford
Address.. 790 Brdwy, Prairie du Sac, Wis.
Driller.. Sylvester Haupt
Engineer.

Completed... 6-30-65
Field check.
Altitude.... 820' ETM
Use..... Irrigation
Static w. l. 50'
Spec. cap... 38.4

R. 6E	
T.	
10	
N.	

Sec. 36

Location: SW $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 36, T10N, R6E Quad. Baraboo 15'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
32"	0	152'				18"	10 ga. steel	+14"	112'				
						18"	10 ga. screen	112'	152'				
Grout: Kind												from	to
native formation												0	100'
Gravel												100'	152'

Samples from 0 to 152' Date received: 3-8-66
Sample Nos. 262638 to 262667 Examined by: J. Warren
Formations: Drift

Date: 2-13-67

Remarks: Well tested for 10 hrs. at 1,000 gpm with 26 ft. of drawdown. Sample tags give the following well location: center of NW $\frac{1}{4}$, sec, 1, T9N., R.6E.
DNR Permanent Well #29703 & Sauk Co. #4.

LOG OF WELL:

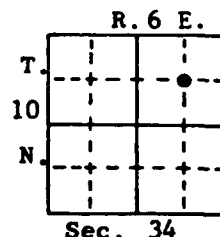
D R I F T	0-5	5	Snd, dk bn & mx d clr, M & C, rnd, Psrtg, tr fn & VC; mch org mat & st
	5-12	7	Snd, mx d clr, C & VC, rnd, F srtg, tr M; ltl fn gvl
	12-22	10	Snd, mx d clr, C & VC, rnd, F srtg, ltl M; tr fn gvl
	22-32	10	Snd, mx d clr, M & C, rnd, F srtg, ltl VC;
	32-37	5	Snd, mx d clr, M & C, rnd, F srtg, ltl VC & fn; tr fn gvl
	37-42	5	Snd, mx d clr, M & C, rnd, F srtg, mch VC; tr fn & M gvl
	42-52	10	Snd, mx d clr, C & VC, Srnd, F srtg, tr M; mch fn gvl, tr st
	52-57	5	Snd, mx d clr, C & VC, rnd, F srtg, ltl M; tr fn gvl
	57-62	5	Snd, mx d clr, C & VC, rnd, F srtg, mch M, tr fn; ltl fn gvl, tr M
	62-72	10	Snd, mx d clr, C & VC, rnd, F srtg, ltl M; tr fn gvl
	72-77	5	Snd, mx d clr, C & VC, rnd, F srtg, mch M, tr fn; tr fn gvl
	77-82	5	Snd, mx d clr, C, rnd, F srtg, mch M & VC;
	82-92	10	Snd, mx d clr, C & VC, rnd, F srtg, ltl M; ltl fn gvl & wood
	92-112	20	Snd, mx d clr, C & VC, rnd, F srtg, ltl M; tr fn gvl
	112-117	5	Snd, mx d clr, C & VC, rnd, F srtg, ltl M; mch fn gvl, tr M
	117-122	5	Snd, mx d clr, C & VC, rnd, F srtg, tr M; mch fn gvl, tr M & st
	122-127	5	Gvl, mx d clr, fn, ang, P srtg; ltl C & VC snd, ltl M/Vfn & org mat
	127-132	5	Snd, mx d clr, M & C, rnd, F srtg, ltl fn & VC; tr fn gvl & wood
	132-137	5	Snd, mx d clr, C, rnd, F srtg, ltl M & VC; tr fn gvl & wood & M gv
	137-147	10	Gvl, mx d clr, fn, Srnd, F srtg; ltl C & VC snd
152	147-152	5	Snd, mx d clr, C & VC, rnd, F srtg, tr M; mch fn gvl

END OF WELL

name Melvin Nolden Well #1
Town of Prairie du Sac
Owner.... Melvin Nolden
Address... Route 1 S 9417 Hwy 12
Prairie du Sac, WI 53578
Driller.. Sylvester Haupt
Engineer.

County: Sauk

Completed... 10/21/82
Field check. 2/29.
Altitude.... 825' ETM
Use..... Irrigation
Static w.l.. 82'
Spec. cap... 50 GPM/ft.



Sec. 34

LOCATION: NE, SW, SW, SW, SW, NE, NE, Sec. 34, T10N, R6E

Quad. Sauk Prairie 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
32"	0	198'				16"	.250 wall steel						
						16"	Johnson Screen	+13"	178'				
								178'	198'				

Filling method:
Samples from 0 to 190' Rec'd: 3/27/85

Grout	from	to
Native Formation	0	172'
Gravel Pack	172'	198'

Studied by: Tom Hanson (0-115')
Craig S. Schwandt (115'-190')
Formations: Outwash

Issued: 2/14/86

Remarks: Well tested for 4 hours at 900 GPM with 20 feet of drawdown.
DNR Permanent Well #29775 & Sauk Co. Irrigation #67.
Drill cuttings from Melvin Nolden Well #2 located in center of NW 1/4, sec. 34, T10N, R6E were received in poor condition and could not be analyzed.

LOG OF WELL:

Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
				Mode	Range	
0-5		Sand	Yl brown	M	Vfn/VC	Trace granules, silt.
5-10		"	"	"	"	Same.
10-15		"	"	"	"	"
15-20		NO	SAMPLE.	Driller reports	same as adjoining intervals.	
20-25		Sand	Yl brown	M	Vfn/VC	Trace gravel (Gran/L peb), silt.
25-30		"	"	"	"	Trace gravel (Gran/S peb), silt, caved organics.
30-35		"	Gy brown	C	"	Little gravel (Gran/M peb), silt, caved organics.
35-40		"	Brown	M	"	Much silt. Trace gravel (Gran/S peb), caved organics.
40-45		"	"	"	"	Same.
45-50		"	Yl brown	"	"	Trace granules, silt.
50-70		NO	SAMPLE.	Driller reports	same as adjoining intervals.	
70-75		Sand	Brown	C	Vfn/VC	Trace gravel (Gran/S peb), silt.
75-80		Gravel	Dk brown	Gran	Gran/M peb	Granite, chert, trap, dolomite, rhyolite, volcanics. Mch sand. Tr st.
80-85		"	"	"	"	Same plus oolitic chert.
85-90		Sand	"	C	Vfn/VC	Much gravel (Gran/S peb). Trace silt.
90-95		"	"	"	"	Much gravel (Gran/M peb). Trace silt.
95-100		"	"	"	"	Much gravel (Gran/L peb). Trace silt.
100-110		NO	SAMPLE.	Driller reports	same as adjoining intervals.	
110-115		Gravel	Mxd yl bn	Gran	Gran/M peb	Dol, chert, qtz, trap, volc, granite. Much sand.
115-120		"	"	S peb	Gran/L peb	Same.
120-125		NO	SAMPLE.	Driller reports	same as adjoining intervals.	
125-130		"	"	Gran	Gran/M peb	Same plus silty sandstone.
130-135		Sand	Pl brown	C	Vfn/VC	Much gravel (Gran/M peb).
135-140		Gravel	Mixed	S peb	Gran/M peb	Dol, volc, trap, cht, qtz, grnt, rhyolite, was ign. Much sand.
140-145		Sand	Pl brown	C	Vfn/VC	Much gravel (Gran/M peb).
145-150		Gravel	Mixed	S peb	Gran/M peb	Dol, schist, trap, cht, grnt, volc, was ign. Much sand. Trace silt.
150-155		"	"	"	"	Same.
155-160		"	"	"	"	"

OUTCAST

Page 2 of 2

PRairie du Sac Village Well #2
~~VILLAGE WELL NO. 3, PRAIRIE DU SAC, SAUK CO., WIS.~~

16

SE, NW, NENE

SE 1/4 SW 1/4 sec. 36, T. 10 N., R. 6 E.

H. A. Platt, Engineer Layne-Northwest Co., Contractors, 1.

Samples examined by F. T. Thwaites, Nos. 194632-194664

3' ETM

0-5	5	Soil, sandy, black	154" hole
5-20	15	Sand, fine to pebbles, yellow-gray	20
20-75	55	Gravel, coarse to fine, some sand	42" hole
			30" pipe
			16" pipe
			54 water cement
75-80	5	Sand, very coarse, gray	175
80-90	10	Gravel, coarse to fine, some sand	18" screen
90-110	20	Sand, fine to pebbles, light gray	102
110-125	15	Gravel, medium to coarse, some sand	16" screen
125-140	15	Sand, coarse to very coarse, gray	gravel pack
140-162	22	Gravel, medium to fine, some sand	

162

162
 12 hours at 1200 g.p.m. specific capacity = 170 g.p.m./ft.

Additional copies may be secured from Wisconsin Geological Survey, Science Hall, Madison 6, Wis.

DNR Perm. # 85911 & Sauk Co. #7.

First Water Quality Test For WISCONSIN UNIQUE WELL NUMBER AY 370

Property Owner Prairie Du Sac Telephone Number (608) 643-7421
 Mailing Address 560 Park Avenue
 City Prairie Du Sac State WI Zip Code 53578
 County Sauk County Well Location Permit No. W Well Completion Date 06/11/91

State of Wisconsin
 Department of Natural Resources
 Private Water Supply - WS2
 Box 7921
 Madison, WI 53707

16

1. Location (Please type or print using a black pen.)
☐ Town ☒ City ☐ Village Fire # (if available)
 of Prairie Du Sac
 Grid or Street Address or Road Name and Number (if available)
River Drive

Subdivision Name _____ Lot # _____ Block # _____

Gov't Lot # _____ or SE 1/4 of SW 1/4 of
 Section 36 - T 10 N: R 6 ☒ E ☐ W

2. Well Type ☐ New
☐ Replacement ☐ Reconstruction/Rehabilitation

of well constructed in 19 56.

Reason for new, reconstructed, replaced, or rehabilitated well?

To reduce nitrate concentration
☐ Drilled ☐ Driven Point ☐ Jetted ☐ Other _____

Well serves _____ / of homes and/or _____ City _____
 (ex: barn, restaurant, church, school, industry, etc.)

High Capacity Well? ☐ Yes ☐ No
 High Capacity Property? ☐ Yes ☐ No

Well Located on Highest Point of Property. Consistent with the General Layout and Surroundings? ☒ Yes ☐ No

Well Located in Floodplain? ☐ Yes ☒ No

Distance In Feet From Well To Nearest:

- | | |
|---------------------------------------|---|
| _____ 1. Landfill | _____ 11. Foundation Drain to Clearwater |
| _____ 2. Building Overhang | _____ 12. Foundation Drain to Sewer |
| _____ 3. Septic or Holding Tank | _____ 13. Building Drain |
| _____ 4. Sewage Absorption Unit | _____ <input type="checkbox"/> Cast Iron or Plastic <input type="checkbox"/> Other |
| _____ 5. Nonconforming Pit | _____ 14. Building Sewer <input type="checkbox"/> Gravity <input type="checkbox"/> Pressure |
| _____ 6. Buried Home Heating Oil Tank | _____ <input type="checkbox"/> Cast Iron or Plastic <input type="checkbox"/> Other |
| _____ 7. Buried Petroleum Tank | _____ 15. Collector Sewer |
| _____ 8. Shoreline/Swimming Pool | _____ 16. Clearwater Sump |

- | |
|--|
| _____ 17. Wastewater Sump |
| _____ 18. Paved Animal Barn Pen |
| _____ 19. Animal Yard or Shelter |
| _____ 20. Slo - Type _____ |
| _____ 21. Barn Gutter |
| _____ 22. Manure Pipe <input type="checkbox"/> Gravity <input type="checkbox"/> Pressure |
| _____ <input type="checkbox"/> Cast Iron or Plastic <input type="checkbox"/> Other |
| _____ 23. Other Manure Storage _____ |
| _____ Other NR 112 Waste Sources _____ |
| _____ 24. _____ |

Drillhole Dimensions	Method of constructing upper enlarged drillhole. (If applicable - more than one.)
From To (in.) (ft.) (ft.)	<input checked="" type="checkbox"/> 1. Rotary - Mud Circulation
0 surface 75'	<input checked="" type="checkbox"/> 2. Rotary - Air
	<input checked="" type="checkbox"/> 3. Rotary - Foam
	<input type="checkbox"/> 4. Reverse Rotary
2 75 210	<input type="checkbox"/> 5. Cable-tool Bit _____ in. dia.
5 210 554	<input type="checkbox"/> 6. Temp. Outer Casing <u>24</u> in. dia.
	Removed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
	If no, explain _____
	<input type="checkbox"/> 7. Other _____

Casing, Liner, Screen	From To
Material, Weight, Specification Mfg. & Method of Assembly	(ft.) (ft.)
new steel bl. p.e. welded A-53- 62.58 lb-Livingstone	surface 226

Grout or Other Sealing Material	From To	Sacks
Method Kind of Sealing Material	(ft.) (ft.)	Cement
best cement	surface 210	650

Geology	From To
Type, Caving/Noncaving, Color, Hardness, Etc.	(ft.) (ft.)
existing well	surface 165
sand & gravel	160 186
shale	186 191
shale & sand stone	191 196
sand stone	191 216
shale	216 283
sand stone	283 355
limestone	255 453
sandstone	453 550
pink granite	550 554

10. Static Water Level _____ ft. above ground level _____ ft. below ground surface	12. Well Is: _____ in. <input type="checkbox"/> Above <input type="checkbox"/> Below Grade
11. Pump Test Pumping Level <u>330</u> ft. below surface Pumping at <u>1700</u> GPM for <u>4</u> hours	Developed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Disinfected? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Capped? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

13. Were all unused, noncomplying, or unsafe wells properly sealed with sealant? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, explain _____	14. Signature of Well Constructor <u>Layne-Northwest</u> Date Signed <u>6-11-91</u> Signature of Drill Rig Operator <u>Lester Waddel</u> Date Signed <u>6-12-91</u>
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Additional comments on reverse side about geology, etc.

WELL CONSTRUCTION REPORT



ABB Environmental Services, Inc.

261 Commercial Street/P.O. Box 7050 Portland, Maine 04112
(207) 775-5401

TELEPHONE MEMORANDUM

PROJECT NO.: 6853-03DATE: 2/10/92CLIENT: USATHAMAPROJECT DESCRIPTION: Badger AAPBETWEEN: Rod PenbletonAND: Russ Kiveney (Strandon Associates, Madison, WI)SUBJECT: Water level in Prairie du Sac Well #2

Mr. Kiveney was the consulting engineer for the town of Prairie du Sac when Well #2 was extended to a total depth of 554 feet below ground surface. I asked Mr. Kiveney if he recalled the artesian condition in the well (indicated on the drilling log from Layne-Northwest Co.). Mr. Kiveney confirmed that the water level is very close to ground surface.

DISTRIBUTION:

ABB

J. Pickett HP-3F

J. Buss HP3-F

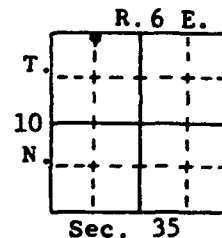
C. Walker HP3-B / File 2.56

17

Well name Kindschi's Inc. Well #3
Town of Prairie du Sac
Owner.... Kindschi's, Inc. c/o Jerome Kindschi
Address.. Route 1
Prairie du Sac, WI 53587
Driller.. Ace Well Drilling, Inc.
Engineer.

County: Sauk

Completed... 2/19/82
Field check.
Altitude.... 833' ETM
Use..... Irrigation
Static w.l.. 80'
Spec. cap... 22 GPM/ft.



Sec. 35

LOCATION: NE, NE, NE, NE, NW, NE, NW, Sec. 35, T10N. R6E

Quad. Sauk Prairie 7 1/2'

Drill Hole						Casing & Liner Pipe or Curbing							
Dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
18"	0	181'				14"	P.E. new pipe U.S. 0.375 wall	+13"	156'	14"	Johnson Screen 35 slot	156'	181'
Drilling method: Rotary Samples from 0 to 180' Rec'd: 1/31/83									Grout			from	to
Studied by: Craig S. Schwandt									Drill cuttings Gravel pack			0 140'	140' 181'

Issued: 9/13/85

Formations: Surface, Outwash

Remarks: DNR Permanent Well #29779 & Sauk Co. Irrigation #70.

Driller reports total well depth of 181'.

Well tested for 4 hours at 1000 GPM with 45 feet of drawdown.

LOG OF WELL:

Sfc.	Depths	Graphic Section	Rock Type	Color	Grain Size		Miscellaneous Characteristics
					Mode	Range	
	0-5		Soil	V dk brown	—	—	Much dark yellow brown sand. Little gravel. Trace silt.
	5-10		Gravel	lt vl bn	Gran	Gran/S peb	Dol, grnt, sch, rhy porph, qtz, cht, ool cht, trap, Mch sand, Tr silt.
	10-15		"	"	"	Gran/M peb	Same.
	15-20		"	"	"	Gran/S peb	Dolomite, sdy dolomite, sil cem ss, quartz, chert, trap, Mch sand.
	20-25		"	Bn yellow	"	"	Sdy dolomite, chert, sil cem ss, quartz, trap, Mch sand, Tr silt.
	25-30		"	"	S peb	Gran/M peb	Granite, gabbro, dolomite, cht, hemic siltstone, Mch sand, Tr silt.
	30-35		"	"	"	"	Dol, cht, diabase, sch, wea igneous, grnt, qtz, ss, Mch sand, Tr silt.
	35-40		"	"	Gran	"	Dol, chert, diabase, granite, trap, volc, quartz, Mch sand, Tr silt.
	40-45		"	"	"	Gran/S peb	Dol, sch, db, trap, grnt, chert, wea iq, hemic sts, Mch sand, Tr silt.
	45-50		Sand	"	C	Vfn/VC	Trace gravel (Gran/S peb), silt.
	50-55		"	"	"	"	Same.
	55-60		"	"	"	"	Trace granules, silt.
	60-65		"	"	"	"	Little gravel (Gran/M peb), Trace silt.
	65-70		"	"	"	"	Little gravel (Gran/S prb), Trace silt.
	70-75		"	"	"	"	Same.
	75-80		"	"	"	"	"
	80-85		"	"	"	"	"
	85-90		"	"	"	"	"
	90-95		"	"	"	"	"
	95-100		"	"	"	"	"
	100-105		"	"	"	"	"
	105-110		"	"	"	"	"
	110-115		"	"	"	"	"
	115-120		"	"	"	"	"
	120-125		"	"	"	"	"
	125-130		"	"	"	"	Much gravel (Gran/S peb), Trace silt.
	130-135		Gravel	"	Gran	Gran/S peb	Cht, ool cht, ls, dol, lim & sil cem ss, Kew volc, gabb, trap, grnt, qtz.
	135-140		"	"	"	"	Same plus rhyolite, Mch sand, Tr silt.
	140-145		Sand	"	C	Vfn/VC	Much gravel (Gran/S peb), Trace silt.
	145-150		"	"	"	"	Little gravel (Gran/S peb), Trace silt.
	150-155		"	"	"	"	Same.
	155-160		"	"	"	"	Much gravel (Gran/S peb), Trace silt.

1 name: Kindschi's Inc. Well #3

[illegible]

PAVING DU SAC VILLAGE WEL #1
CITY WELL NO. 2, VILLAGE DU SAC, WIS.

SE 1/4, NE 1/4, SW 1/4, sec. 1, T. 9 N., R. 6 E.

R. C. Amundson, Engineer; Layne-Northwest Co., Contractor

Samples from test well examined by F. T. Thwaites,

City Park

Nos. 133555-133980

18

Alt 772'

D I F T	0-5	5		Sand, medium, brown-gray	
	5-15	10		Sand, coarse, light gray, dolomitic	
	15-25	10		Gravel, fine, very stony	
	25-35	10		Sand, medium, light gray	
	35-150	115		Sand, medium to coarse, some pebbles at top, light gray, dolomitic	30" pipe cemented 38" hole 72" pipe 80" pipe 18" shuttle screen Gravel pack 130
E A U C L 40	150				
	150-170	20		Sandstone, fine to medium, light gray, dolomitic	
	170-180	10		Sandstone, medium to fine, light gray, dol.	
	180-190	10		Shale, sandy, gray, dolomitic	

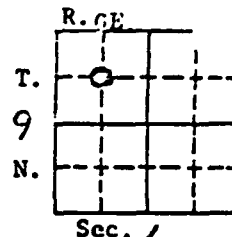
Formations: Drift (outwash); Eau Claire

Specific capacity of final well = 56 g.p.m./ft.

County: Sauk

Well name: Melvin Bickford, Well #1
Town of: Prairie du Sac
Owner....: Melvin Bickford
Address...: 790 Broadway
Prairie " c, Wisconsin
Driller...: Sylveste
Engineer..:

Completed... 7/8/65
Field check.
Altitude.... 720' ETM
Use.....: Irrigation
Static w. l. -- 79'
Spec. cap... -- 56.0



SE, SE, SW, SW, SE, NW, NW, Sec. 1, T9N, R6E

Quad. Baraboo 15'

Drill Hole						Casing & Liner Pipe or Curbing							
dia.	from	to	Dia.	from	to	Dia.	Wgt. & Kind	from	to	Dia.	Wgt. & Kind	from	to
32"	0	187'				18"	10ga. steel	+13"	147'				
						18"	10ga. screen	147'	187'				

Grout: Kind	from	to
Native formation	0	140'
Gravel shroud	140'	187'

Samples from 0 to 186' Date received: 3/8/66
Sample Nos. 262678 to 262715 Examined by: J. Warren Date: 2/13/67
Formations: Drift

Remarks: Well tested for 10 hours at 1400 gpm with 25 feet of drawdown. Corrected well depth-187'. Sample tags give the following well location: NW $\frac{1}{4}$, NW $\frac{1}{4}$, sec.36, T.10N, R.6E.
DNR Perm. Well # 29704 & Sauk Co. #5.

LOG OF WELL:

0-2	2	Snd. dk bn&mx d clr. M&C. Srnd. VP srtg. ltl fn&V fn:mch org mat. ltl st
2-5	3	Snd. dk vl or&mx d clr. M&C. rnd. ltl fn. V fn&VC: ltl st&cl. tr fn gvl
5-10	5	Snd. mx d clr. M&C. rnd. P srtg. ltl VC & fn: tr st
10-15	5	Snd. mx d clr. M. rnd. P srtg. mch C & fn. ltl VC: tr fn gvl
15-20	5	Snd. mx d clr. M & C. rnd. P srtg. ltl VC. tr fn: ltl fn gvl
20-42	22	Snd. mx d clr. M & C. rnd. F srtg. ltl VC;
42-57	15	Snd. mx d clr. M & C. rnd. F srtg. ltl VC: tr st
57-62	5	Snd. mx d clr. M & C. rnd. F srtg. tr VC:
62-67	5	Snd. mx d clr. M. rnd. F srtg. ltl C. tr fn & VC;
67-72	5	Snd. mx d clr. M. rnd. F srtg. ltl C. tr fn;
72-77	5	Snd. mx d clr. M & C. rnd. F srtg. ltl C;
77-82	5	Snd. mx d clr. M. Sang. F srtg. ltl C;
82-92	10	Snd. mx d clr. M & C. Srnd. F srtg. ltl VC;
92-112	20	Snd. mx d clr. C & VC. rnd. F srtg. tr M: ltl fn gvl. tr roots
112-117	5	Snd. mx d clr. M & fn. Srnd. F srtg. ltl C. tr VC;
117-132	15	Snd. mx d clr. M. rnd. F srtg. ltl C;
132-142	10	Snd. mx d clr. C. rnd. F srtg. tr M. mch VC:
142-147	5	Snd. mx d clr. C & VC. rnd. ltl M;
147-157	10	Snd. mx d clr. C & VC. rnd. F srtg. ltl M: ltl fn gvl
157-167	10	Snd. mx d clr. C & VC. rnd. F srtg: mch fn gvl
167-177	10	Snd. mx d clr. C & VC. rnd. F srtg. tr M: mch fn gvl. tr M & st
177-182	5	Snd. mx d clr. C & VC. rnd. F srtg. tr M: mch fn gvl
182-186	4	Snd. mx d clr. C & VC. rnd. F srtg. tr M: mch fn gvl. ltl st & wood

Duff View Acres, Inc. Well #1

Badger Village Development Corp., Baraboo, Wis.

NE 1/4, SW 1/4,

Sec. 3, T 10N, R 6E, Sumpter Township

Earl C. Fuchs, Driller, May 1960

Sample Nos. 226027-226082 - Examined by M. E. Ostrom

876.6' ETM

20

D
R
I
F
T

175

D
R
E
S
B
A
C
HP
C

0- 5	5	Str&Cl, gry bn, dolie cem; tr snd
5- 10	5	Str&Cl, gry bn, dolie cem; lrl snd
10- 15	5	Snd, lt yl bn, M&C, Srnd, mch VC&fn, ltl Vfn, mxd
15- 50	35	Snd, lt yl bn, M&C, Srnd, P srtg, ltl VC&fn, mostly C
50- 55	5	Snd, lt yl bn, M&C, Srnd, ltl VC&fn, mostly C; ltl gvl
55- 80	25	Snd, lt yl bn, M&C, Srnd, P srtg, ltl VC&fn, mostly C; mch fn gvl
80- 85	5	Snd, lt yl bn, M&C, ltl VC&fn, mostly qtz; ltl gvl
85-100	15	Snd, lt yl bn, M&C, Srnd, P srtg, ltl VC&fn, mostly qtz; mch Vfn gvl
100-105	5	Snd, lt yl bn, M&C, ltl VC&fn, mostly qtz; ltl gvl
105-110	5	Snd, lt yl bn, M&C, Srnd, P srtg, ltl VC&fn, mostly qtz
110-120	10	Snd, lt yl bn, M&C, Srnd, P srtg, ltl VC&fn, mostly qtz; mch Vfn&fn gvl
120-125	5	Snd, lt yl bn, M&C, Srnd, ltl VC&fn, mostly qtz; ltl gvl
125-130	5	Snd, lt yl bn, M&C, Srnd, ltl VC&fn, mostly qtz
130-150	20	Snd, lt yl bn, M&C, Srnd, P srtg, ltl VC&fn, mostly qtz; tr Vfn gvl
150-160	10	Gvl, lt yl bn, fn&Vfn, Sang, P srtg, tr M, mxd; mch snd, mostly qtz
160-175	15	Gvl, lt yl bn, fn&Vfn, Sang, P srtg, tr M, mxd; mch snd, mostly qtz; mch cl
175-180	5	Ss, ol gry, M&C, Srnd, G cem dol & si, mch fn&Vfn
180-185	5	Dol, gry gn, fn&Vfn, dns, mch snd & cl; mch sh & ss
185-190	5	Ss, ol gry, C&VC, F dol & si cem, mch M, ltl fn&Vfn
190-195	5	Ss, ol gry, C&VC, F dol & si cem, mch M, ltl fn&Vfn
195-200	5	Ss, ol gry, C&VC, F dol & si cem, mch M, ltl fn&Vfn
200-205	5	Ss, ol gry, C&VC, F dol & si cem, mch M, ltl fn&Vfn
205-210	5	Ss, ol gry, M&C, F dol & si cem, tr VC, mch fn&Vfn
210-215	5	Ss, gry or pnk, C&V, F dol & si cem, mch fn, ltl Vfn
215-220	5	Ss, gry rd, M&C, G dol & si cem, mch fn, ltl VC; tr sts
220-230	10	Ss, gry or pnk, M&C, Srnd, P srtg, G dol & si, mch fn, ltl VC, tr Vfn; mch dol; few granules
230-235	5	Dol, ol gry, fn&Vfn, dns, V sndy & sty; ltl gry rd sts
235-245	10	Dol, gry or pnk, fn&Vfn, dns, V sndy & sty; ltl gry rd sts; few granules
245-250	5	Ss, Vlt ol gry, C&V, F dol & si cem, mch VC & fn
250-265	15	Granite wash
265-280	15	Granite

+12

10' 12" steel pipe
13 3/4" hole

43'

8" steel pipe

72' Water L

180'

7 7/8" hole

280'

Formations: Drift, Dresbach, Precambrian

Well tested for 1/2 hr. at 200 gpm with 78 ft. of drawdown. Specific capacity = 2.5 gpm per ft. of drawdown.

DNE Perm. Well #8583D + Sank Co. #2.

OWNER: *Star Village Well #1*
Thomas & Betty Winch, Mazomanie, Wis.

SE, NW, NE, ~~SW~~ SE, SW, Sec. 10, T 10N, R 6E

Don O'Connor, Driller - 9-24-64

860' ETM

21

Sample Nos. 251995-252045, Examined by M.E. Ostrom - 2-18-64

0-10	10		St, Myl rd bn, P; Si, mch snd, cl		
10-20	10		Snd, mxd, M, C, Srnd, Psrtg, tr fn, Vfn, VC, trVfn, fn gvl		
20-40	20		Snd, mxd, M, C, Srnd, Psrtg, tr fn, Vfn, VC, trVfn, fn gvl		
40-50	10		Snd, mxd, M, C, Srnd, Psrtg, tr fn, Vfn, VC, trVfn, fn gvl, st		
50-65	15		Snd, mxd, M, C, Srnd, Psrtg, tr fn, Vfn, VC, mch st, cl		
65-80	15		Snd, mxd, C, VC, Srnd, Psrtg, trM		
80-90	10		Snd, mxd, C, VC, Srnd, Psrtg, trM, trVfn gvl		
90-135	45		Snd, mxd, C, VC, Srnd, Psrtg, trM, trVfn gvl, fn gvl		
135-140	5		Snd, mxd, C, VC, Srnd, Psrtg, trM, mchVfn, fn gvl		
140-145	5		Snd, mxd, C, VC, Sang, Psrtg, trM, fn, mchVfn, fn gvl		
145-150	5		Snd, Vlt yl, M, fn, Srnd, Psrtg, tr sang, C, VC, Vfn gvl		
150-165	15		Snd, mxd, C, VC, S nd, Psrtg, trM, mchVfn, fn gvl		
165-170	5		Ss, Vlt yl, M, fn, Srnd, Psrtg, trC, mch "caved"		
170-180	10		Ss, lt yl, M, rnd, Gsrtg, trC		
180-215	35		Ss, lt yl rd, M, rnd, Gsrtg, Dolc: F, trC, fn, Vfn		
215-220	5		Ss, lt yl, M, rnd, Fsrtg, Dolc: F, trC, fn, Vfn		
220-225	5		Ss, lt yl, M, rnd, Fsrtg, trC		
225-235	10		Ss, Myl, M, rnd, Fsrtg, trC		
235-245	10		Ss, Myl, M, rnd, F rtg, trC, fn		
245-255	10		No Sample		
255-260	5		Ss, lt yl, M, C, rnd, Psrtg, Dolc: P, tr fn, Vfn, tr calc		
260-265	5		Ss, lt yl, M, C, rnd, Psrtg, Dolc: P, tr fn, Vfn, tr calc		
265-270	5		Ss, lt yl, M, C, rnd, Dolc: P, tr fn, Vfn, tr calc, mch st		

Formations: Alluvium, Dresbach

Well tested for 6 hrs. at 210 gpm with 55 ft. of drawdown.

Specific capacity = 3.8 gpm per ft. of drawdown.

DNR Permanent Well #85810 & Sauk Co. Miscellaneous #5.

Now St. John's Convent Valley of Our Lady, Wis. SK-11

Formerly **E.L. PHILIPP WELL, SAUK CO.**

NW, NW, SE, NW. SWSW 1/4, NE 1/4, Sec. 15, 10-6 E

L.P. O'Connors, Driller
Completed Jan., 1922
Elevation 859' E.T.M.

Samples examined by F.T. Thwaites, U.W. Nos. 54347-54445, 54485-91.

(22)

DRIFT	190	0-8	Soil & brown clay (loam)	
		8-65	Sand, coarse, gray, pebbles to 3/8"	
		65-70	Gravel, stones to 1/2" - water	45' artesian head
		70-95	Sand, medium to coarse, yellowish gray, calcar.	ground water
		95-106	Till, yellowish gray, sandy	
		106-109	Sand, coarse, yellowish gray	8" casing
		109-115	Till, like above	
		115-125	Gravel, gray, coarse	
		125-140	Clay, gray, very calcareous	
		140-150	Sand, coarse to medium, light yellowish gray	
		150-155	Clay like 125-140	
		155-170	Sand, coarse to medium, light yellowish gray	
		170-180	Sand, fine, gray (non-glacial)	
		180-190	Sand, very coarse, gray, glacial	120
EAU CLAIRE	160	190-225	Shale, green, very calcareous; sandstone, fine, yellowish gray, hard, calcareous	6" liner
		225-270	Sandstone, medium to fine, light yellowish gray, calcareous	8" hole
		270-285	Sandstone, medium, yellow, "running"	
		285-310	Shale, bluish gray, calcareous	
		310-315	Sandstone, very fine, lt. gray, very shaley, calcar.	
		315-350	Shale, bluish gray, calcareous.	
MT. SIMON	190	350-360	Sandstone, medium, light yellow, calcareous.	
		360-425	Shale, greenish, brownish & bluish gray, part sandy, mainly calcareous.	270 pecker
		425-440	Sandstone, fine, gray, much pyrite, calcareous	
		440-445	Shale, pinkish gray, calcareous	
		445-455	Dolomite, gray, shaly, sandy, pyrite spheres	
		455-460	Shale, like 440-445	
		460-475	Sandstone, coarse, 1/8" yellowish gray, calcareous	
		475-485	Sandstone, fine, light yellowish gray, calcareous	
		485-490	Shale, like 440-445	
		490-520	Sandstone, very fine to medium, gray, calcareous	
PRE-CAMB.	85	190 520-540	Conglomerate, gray, pink quartzite pebbles.	
		540± - 625	Granite, gray, upper part decomposed, red	565 6" hole

BADGER ARMY AMMUNITION PLANT WELL NO. 5, FAUSEN-ORDNANCE TOWNS, SAUK CO., WIS.

Layne-Northwest Co., Contractors, 1942

NE, SE, NE, SE, NW sec. 14, T. 10 N., R. 6 E. Elevation 960' ETM

Samples examined by F. T. Thwaites, Nos. 115033-115141

23

0-5	5		Silt, black
5-10	5		Gravel, fine, sandy, yellow-brown, leached
10-20	10		Gravel, fine, sandy, light gray
20-60	40		Sand, coarse to medium, light gray
60-75	15		Gravel, coarse, stony
75-85	10		Gravel, fine and sand, very coarse
85-95	10		Gravel, coarse, stony
95-130	35		Sand, medium to very coarse, some pebbles, light gray
130-140	10		Gravel, coarse, stony
140-190	50		Sand, coarse to medium, light gray
190-195	5		Gravel, fine, sandy, silty (till?)
195-200	5		Gravel, fine, very sandy
200-230	30		Sand, coarse to medium, light gray
230-240	10		Gravel, sandy
240-250	10		Sandstone, fine to medium, white to lt. gray
250-260	10		Sandstone, fine to medium, lt. yellow-gray
260-270	10		No sample, 260-265: ss., fine, gray, dol.
270-285	15		Siltstone, gray, dolomitic
285-350	65		Shale, silty, dark gray, dolomitic
350-370	20		Siltstone, light gray, dolomitic
370-390	20		Sandstone, fine to silty, gray, dolomitic
390-450	60		Siltstone, light gray, dolomitic; shale, dark gray, dolomitic; no sample 420-425
450-485	35		Siltstone, light gray, slightly dolomitic
485-495	10		Sandstone, silty to coarse, light gray
495-515	20		Conglomerate, quartzite pebs. in ss like above
515-520	5		Conglomerate, quartzite pebs. in ss, fine-grs.
520-540	20		Granite, gray, decomposed
540-553	13		Granite, pink with some quartzite inclusions

65 water

12" drive pipe

245

Formations: Drift (glacial outwash); Eau Claire (base may be at 370); Mt. Simon; pre-Cambrian (granite intruding quartzite)

Tested at 602 g.p.m. specific capacity = 6.35 g.p.m.

Badger Army Ammunition Plant Well #4

Well NO. 4, BADGER ORDNANCE WORKS, SAUK CO., WIS.

SE, SW, SE, SW, SE, NW, NE, SW, NE, sec. 1, T. 10 N., R. 6 E. Elevation 904' ETM 24

Layne-Northwest Co., Contractors, 1942

Samples examined by F. T. Thwaites, Nos. 114995-115032

D
R
I
F
T

0-5	5		Soil, clay, black
5-10	5		Till, yellow-gray, leached
10-20	10		Gravel, coarse, sandy
20-25	5		Till, yellow-gray, dolomitic
25-45	20		Gravel, fine, much quartzite, mostly stony
45-50	5		Gravel, fine, sandy
50-55	5		Sand, pebbly, gray, dolomitic
55-60	5		Gravel, fine, sandy
60-95	35		Sand, coarse, light gray, glacial
95-105	10		Till, sandy, yellow-gray, dolomitic
105-115	10		Sand, fine to coarse, light gray, glacial
115-130	15		Clay, light pink, dolomitic
130-135	5		Sand, very fine to medium, gray, dolomitic
135-150	15		Gravel, fine, sandy
150-155	5		Sand, coarse to medium, light gray, glacial
155-170	15		Gravel, medium to coarse, stony
170-185	15		Gravel, fine to coarse, some sand
185-189	4		Gravel, fine, some sand

12" drive
pipe
90 water170
Layne Keystone
shutter screw

189 185-189 4 Gravel, fine, some sand

Tested at 302 g.p.m. specific capacity = 60.4 g.p.m.

25
 WELL NO. 3, BADGER ORDNANCE WORKS, SAUK CO., WIS.

Layne-Northwest Co., Contractors, 1942

Samples examined by F. T. Thwaites, Nos. 114551-114640

SE, SW, NE, SW, NE, sec. 2, T. 10 N., R. 6 E.

Elevation 884 887' ETM

109	0-5	5	Clay, black	12" drive pipe
	5-10	5	Clay, brown	
	10-15	5	Sand, medium to fine, light brown-gray	
	15-20	5	Sand, coarse to fine, light gray	
	20-35	15	Gravel, fine, very sandy	
	35-55	20	Sand, medium to very coarse, light gray	
	55-65	10	Gravel, fine, sandy	
	65-109	44	Sand, medium to fine, light gray	
	109-115	6	Conglomerate, quartzite, quartz pebbles	90 water
	115-120	5	Conglomerate, more fine to medium, vel-gy ss.	
321	120-130	10	Sandstone, fine to medium, light brown	
	130-140	10	Sandstone, medium to fine, lt. gy; peb. qz.	
	140-150	10	Sandstone, fine to medium, light gray	
	150-155	5	Sandstone, like above; pebbles pink quartzite	
	155-165	10	Sandstone, medium to fine, light pink	
	165-175	10	Sandstone, fine to medium, light gray	
	175-180	5	Siltstone, light gray, dolomitic	
	180-185	5	Siltstone like above; pebbles quartzite	
	185-195	10	Siltstone, gray, dolomitic	
	195-200	5	Sandstone, very fine, yellow-gray, dol.	12" hole
21	200-240	40	Sandstone, fine to silty, light gray, dol.	
	240-250	10	Siltstone, gray, dolomitic; ss, fine, lt. gy.	
	250-265	15	Sandstone, fine to silty, light gray, dol.	
	265-285	20	Siltstone, gray, dolomitic; ss, fine, lt. gy.	
	285-295	10	Siltstone, lt. gray, dol., pebb. pink qz.	
	295-310	15	Siltstone, light gray, dolomitic	
	310-330	20	Siltstone, gray, light pink, dolomitic	
	330-340	10	Siltstone like above; conglomerate, pink	
	340-390	50	Conglomerate, pebbles quartz and quartzite in sandstone, coarse to fine, pink, dolomitic	
	390-430	40	Siltstone, red to pink, some quartzite pebbles	
21	430-451	21	Granite, pink, fine-grained	

formations; Drift, glacial outwash; Eau Claire; pre-Cambrian

Tested at 140 g.p.m. specific capacity = 1.73 g.p.m.

BANCER ROAD (MUNICIPALITY) UNIT 1221

WELL NO. 1, BANCER ORDINANCE WORKS, SAUK CO., WIS.

S. 1/4, NE 1/4, NE 1/4, SW 1/4, SE 1/4 sec. 3, T. 10 N., R. 6 E. (Administration Area)

Mason and Hanger Co., Engineers; Layne-Northwest Co., C

Samples examined by F. T. Thwaites, Nos. 115723-115728

Elevation = 863

D R I F T	0-5	5		Soil, black sand clay, brown, leached	68 water
	5-25	20		Sand, very coarse to medium, yellow-brown	
	25-58	33		Gravel, very sandy	
	58-93	35		Sand, medium to fine, light gray, dolomitic, mainly quartz grains	
	93-132	39		Gravel, sandy (water)	
	132-172	40		Sand, coarse to fine, light gray, dolomitic (water)	
E A U C L A I R E	172-176	4		Sand, very fine to silty, light gray, dol.	208
	176-190	14		Clay, dark gray, dolomitic	
	190-201	11		Sandstone, very fine to silty, lt. gray, dol.	
	201-209	8		Sandstone, medium to silty, lt. gray, dol.	
	209-216	7		Siltstone, sandy, lt. yellow-gray, dolomitic	
	216-235	19		Siltstone, light gray, very dolomitic	
	235-298	63		Shale, dark gray, dolomitic	
	298-306	8		Sandstone, very coarse to fine, lt. gy. dol.	
	306-315	9		Sandstone, fine, light gy. dol., water	
	315-345	30		Sandstone, very fine, light gray, dolomitic; siltstone, light gray, dolomitic	
	345-365	20		Shale, dark gray, silty, dolomitic	
	365-375	10		Siltstone, light gray, sandy, dolomitic	
	375-385	10		Sandstone, very coarse to fine, pink, dol.	
	385-405	20		Siltstone, red, slightly dolomitic	
	405-410	5		Sandstone, silty to medium, lt. gy. shale, gy.	
16	410-425	15		Clay, red, fragments of decomposed volcanic r	15" hole

Formations: Drift (glacial outwash and lake sediments); Eau Claire; pre-Cambrian

Tested at 81 g.p.m. specific capacity = 1.55 g.p.m.

27

BADGER ARMY AMMUNITION PLANT WELL
 WELL NO. 2, BADGER ORDNANCE WORKS, SAUK CO., WIS.
 Layne-Northwest Co., Contractors, 1942
 Samples examined by F. T. Thwaites, Nos. 114507-114550
 C. SE, SE $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$ sec. 1, T. 10 N., R. 6 E.
 Elevation 920' ETM

D R I F T	0-60	60		No samples	
	60-70	10		Sand, medium to silty, gray, dolomitic	
	70-90	20		Gravel, fine, rather sandy	
	90-110	20		Sand, coarse to medium, light gray, dolomitic	12" drive pipe
	110-130	20		Sand, medium to fine, light gray, dolomitic	
	130-140	10		Gravel, sandy, pebbles to 1"	
	140-170	30		Sand, coarse to medium, light gray, dolomitic	
	170-180	10		Gravel, fine, very sandy	170 water
	180-190	10		Gravel, stony, pebbles to 3/4"	
	190-210	20		Sand, coarse to medium, light gray, dolomitic	
E A S T	210-250	40		Sand, medium to fine, light gray, slightly dolomitic	
	250-260	10		Sand, coarse to medium, light gray, dolomitic	
	260-290	30		Siltstone, gray, dolomitic	273
	290-300	10		Shale, dark gray, slightly dolomitic	
	300-330	30		Sandstone, fine, light gray; shale, gray	
	330-350	20		Siltstone, light gray, dolomitic	12" hole
	350-355	5		Sandstone, fine to medium, lt. gray, dolomitic	
	355-395	40		Sandstone like above; siltstone, lt. gray, pink, dol.; shale, gray; no. samp. 380-385	
	395-400	5		No sample	
	400-407	7		Sandstone, fine to medium, lt. gray, very dol.	
I N T E R C O N F I D E N T I A L	407-430	23		Siltstone, gray, dol; ss, like above; qz. peb.	
	430-440	10		Sandstone, coarse to fine, gray, qz. pebbles	
	440-471	31		Quartzite, pink	

Formations: Drift, mainly outwash; Eau Claire; pre-Cambrian
 tested at 342 g.p.m. specific capacity = 8.15 g.p.m.

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH See Instructions on Reverse Side

- County Sauk Town ☒ Prairie Du Sac
Village ☐
City ☐ Check one and give name
- Location Sec 25- T10N R6E
Name of street and number of premise or Section, Town and Range numbers
- Owner ☒ or Agent ☐ John Radlund
Name of individual, partnership or firm
- Mail Address Prairie Du Sac
Complete address required
- From well to nearest: Building 2 ft; sewer _____ ft; drain _____ ft; septic tank _____ ft;
dry well or filter bed _____ ft; abandoned well _____ ft.
- Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	236			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std B1K	0	223

9. GROUT:

Kind	From (ft.)	To (ft.)
None		

11. MISCELLANEOUS DATA:

Yield test: 7 Hrs. at 10 GPM.
Depth from surface to water-level: 81 ft.
Water-level when pumping: 122 ft.
Water sample was sent to the state laboratory at:
Madison on Oct 14 1957
City

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Sand & gravel	0	60
Sand	60	190
Sand & Gravel	190	223
Sandstone	223	236

Construction of the well was completed on:

Oct. 8 1957

The well is terminated 7' inches
☐ above, below ☒ the permanent ground surface.

Was the well disinfected upon completion?

Yes ☒ No _____

Was the well sealed watertight upon completion?

Yes ☒ No _____

Signature

Don O'Connor
Registered Well Driller

Please do not write in space below

Spring Green
Complete Mail Address

Rec'd _____ No. _____

Ans'd _____

Interpretation _____

Gas—24 hrs. _____ 10 ml 10 ml 10 ml 10 ml 10 ml

48 hrs. _____

Confirm _____

B. Coli _____

Examiner _____

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County SAUB Town ☒ Village ☐ City ☐ PRairie Du Sac
 2. Location Sec. 26 T. 4 N. R. 6 E
 3. Owner ☒ or Agent ☐ Kinchi Bros.
 4. Mail Address PRairie Du Sac
 Complete address required

5. From well to nearest: Building 40 ft; sewer _____ ft; drain _____ ft; septic tank _____ ft;
 dry well or filter bed _____ ft; abandoned well _____ ft.

6. Well is intended to supply water for: FARM

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
4	70	178			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
4	Steel	0	122
4	Screen	122	178

9. GROUT:

Kind	From (ft.)	To (ft.)
CLAY	0	70

11. MISCELLANEOUS DATA:

Yield test: 2 Hrs. at 6 GPM.

Depth from surface to water-level: 75 ft.

Water-level when pumping: 75 ft.

Water sample was sent to the state laboratory at:

Not Complete

City _____ on _____ 19____

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
36" OPEN Hole	0	70
CLAY	70	121
SAND	121	142
CLAY	142	160
SAND	160	178

Construction of the well was completed on:

1/5 1959

The well is terminated 8 inches
☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes 2 No _____

Was the well sealed watertight upon completion?

Yes 1 No _____

Signature _____

Registered Well Driller

Please do not write in space below

Complete Mail Address _____

Rec'd _____ No _____

Ans'd _____

Interpretation _____

10 ml 10 ml 10 ml 10 ml 10 ml

Gas—24 hrs. _____

48 hrs. _____

Confirm _____

B. Coli _____

Well Construction Report For WISCONSIN UNIQUE WELL NUMBER **DF 747**

State of Wisconsin
Department of Natural Resources
Private Water Supply - WS/2
Box 7921
Madison, WI 53707

30

Property Owner **Ervin Zanders** Telephone Number **608 643-6765**
Mailing Address **Rt 1**
City **Fraire Du Sac** State **Wis** Zip Code **53579**
County of Well Location **Sauk** County Well Location Permit No. **W** Well Completion Date **4/9/90**

1. Location (Please type or print using a black pen.)
☒ Town ☐ City ☐ Village Fire # (if available) _____
Grid or Street Address or Road Name and Number (if available) _____

Well Constructor (Business Name) **Albin Herbeck** Registration # **482**
Address **Box 136**
City **Richland Center Wis** State **Wis** Zip Code **53581**

2. Mark well location in correct 40-acre parcel of section.
N
W X E
S

Subdivision Name _____ Lot # _____ Block # _____
Gov't Lot # _____ or _____ 1/4 of _____ 1/4 of _____
Section **25** T **10** N: R **6** ☐ E ☐ W
3. Well Type ☐ New ☒ Replacement ☐ Reconstruction
of unique well # _____ constructed in 19 _____
Reason for new, replaced or reconstructed well? _____

4. Well serves **1** # of homes and/or **Farm** (ex: barn, restaurant, church, school, industry, etc.)
High Capacity Well? ☐ Yes ☒ No
High Capacity Property? ☐ Yes ☒ No

need water
☐ Drilled ☐ Driven Point ☐ Jetted ☐ Other _____

5. Well Located on Highest Point of Property, Consistent with the General Layout and Surroundings? ☒ Yes ☐ No If no, explain on back side
Well Located in Floodplain? ☐ Yes ☒ No **12+** 9. Downspout/Yard Hydrant _____
Distance In Feet From Well To Nearest: _____
1. Landfill _____ 10. Privy _____
2. Building Overhang _____ 11. Foundation Drain to Clearwater _____
3. Septic or Holding Tank **29+** 12. Foundation Drain to Sewer _____
4. Sewage Absorption Unit **55+** 13. Building Drain _____
5. Nonconforming Pit **12+** ☐ Cast Iron or Plastic ☐ Other _____
6. Buried Home Heating Oil Tank _____ 14. Building Sewer ☐ Gravity ☐ Pressure _____
7. Buried Petroleum Tank _____ ☐ Cast Iron or Plastic ☐ Other _____
8. Shoreline/Swimming Pool _____ 15. Collector or Street Sewer _____
16. Clearwater Sump _____ 17. Wastewater Sump _____
18. Paved Animal Barn Pen **55+** 19. Animal Yard or Shelter **55+**
20. Silo - Type **51+** 21. Barn Gutter _____
22. Manure Pipe ☐ Gravity ☐ Pressure ☐ Cast Iron or Plastic ☐ Other _____
23. Other Manure Storage _____
Other NR 112 Waste Source _____
24. _____

6. Drillhole Dimensions
Dia. (in.) From (ft.) To (ft.)
10 surface **20**
6 **20** **307**
Method of constructing upper enlarged drillhole only.
☐ 1. Rotary - Mud Circulation
☐ 2. Rotary - Air
☐ 3. Rotary - Foam
☐ 4. Reverse Rotary
☐ 5. Cable-tool Bit **10** in. dia.
☒ 6. Temp. Outer Casing **10** in. dia.
Removed? ☒ Yes ☐ No
If no, explain _____
☐ 7. Other _____
Drill & drive

8. Geology
Type, Caving/Noncaving, Color, Hardness, Etc. From (ft.) To (ft.)
Topsoil surface 1
silty clay 1 15
Sand & gravel 15 279
sandstone 279 300
shale 300 307
110.4' BGS.

7. Casing, Liner, Screen
Material, Weight, Specification From (ft.) To (ft.)
Dia. (in.) Mfg. & Method of Assembly
6 **Steel 40 18.27 P. E.** surface **279**
Pitless
Astm A 53
6 5/8 O. D. 250 ERW.
Dia. (in.) **screen type and material** From To

10. Static Water Level
_____ ft. above ground level
_____ ft. below ground surface
11. Pump Test
Pumping Level **115** ft. below surface
Pumping at **12** GPM for **8** hours
12. Well Is:
☒ Above Grade
☐ Below Grade
Developed? ☒ Yes ☐ No
Disinfected? ☒ Yes ☐ No
Capped? ☒ Yes ☐ No

8. Grout or Other Sealing Material
Method From (ft.) To (ft.) Sacks Cement
Kind of Sealing Material
Clay slurry surface **279**

13. Did you permanently seal all unused, noncomplying, or unsafe wells?
☐ Yes ☒ No If no, explain **Other reasons**
14. Signature of Point Driver or Registered Driller _____ Date Signed _____
Signature of Drill Rig Operator _____ Date Signed _____

Make any comments on reverse side about geology, etc.

WELL CONSTRUCTION REPORT

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

30
JAN 22 1946

1. County Sauk Town Prairie Du Sac
 2. Location NW 1/4 of N 7 1/2 of Sec 25 T 10 N R 6 E
 3. Owner or Agent Leo Zander
 4. Address Prairie Du Sac, Wis. R. D.
 5. From well to nearest: Building 5 ft; sewer Non ft; drain Non ft; septic tank Non ft;
 dry well or filter bed Non ft; abandoned well in use ft.
 6. Well is intended to supply water for: Dairy Farm

7. DRILLHOLE OR EXCAVATION:

Dia. (in.)	From (ft.)	To (ft.)
6	0	229

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Std Weight		
	Steel Pipe	0	229

9. GROUT:

Kind	From (ft.)	To (ft.)
Clay Fill	0	20

11. MISCELLANEOUS DATA:

Yield test: 2 Hrs. at 10 GPM.
 Depth from surface to water: 110 ft.
 Water-level when pumping: 114 ft.
 Water sample sent to laboratory at
Madison on 9/18 1945

Signature Geo Reynolds
 Registered Well Driller

10. FORMATIONS:

Kind	Thick-ness (ft.)	Total Depth (ft.)
Top Soil & Clay	0	25
Sand & Some Gravel	25	115
Blue Clay	115	145
River Sand	145	215
Sand & Some Gravel	215	226
Gravel	226	229

Construction of the well was completed on 9/16 1945

The well is terminated 7 ft in Pit inches
 (~~above~~) (below) the permanent grade.

Was the well disinfected upon completion?

Yes Yes No No

Was the well sealed watertight upon completion?

Yes Yes No No

Portage Wis
 Complete Mail Address

WELL CONSTRUCTOR'S REPORT

FORM 3300-15

NOV 27 1974

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

1. COUNTY
Frank

CHECK ONE
☒ Town ☐ Village ☐ City

NAME
James H. Hinkle

2. LOCATION - 1/4 Section Section Township Range
N6 1/4 16 1/4 34 10N 6E

OR - Grid or street no Street name

3. OWNER AT TIME OF DRILLING
James Hinkle

ADDRESS
Rte 1 Box 52

POST OFFICE
Deerfield Wis

AND - If available subdivision name, lot & block no.

4. Distance in feet from well to nearest:
(Record answer in appropriate block)

BUILDING C.I.	SANITARY C.I.	SEWER TILE	FLOOR DRAIN C.I.	FOUNDATION TILE	SEWER CONNECTED	INDEPENDENT	WASTE WATER DRAIN C.I.	TILE
<u>8 ft</u>	<u>20 ft</u>	<u>34 ft</u>			<u>none</u>		<u>25 ft</u>	

CLEAR WATER DRAIN C.I.	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
<u>18 ft</u>	<u>50 ft</u>		<u>75 ft</u>					

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for:
Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>10</u>	<u>Surface</u>	<u>10</u>			
<u>6</u>	<u>10</u>	<u>79</u>			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
<u>6"</u>	<u>Heavy Steel Pipe</u>	<u>Surface</u>	<u>76</u>
	<u>Steel 19.18" dia</u>		
	<u>ft</u>		
<u>6"</u>	<u>Johnson Screen</u>	<u>Screen 15' Slot</u>	
	<u>3 ft long</u>	<u>76</u>	<u>79</u>

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Drill Cuttings</u>	<u>Surface</u>	<u>10</u>

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Sand</u>	<u>Surface</u>	<u>25</u>
<u>Sand & Gravel</u>	<u>25</u>	<u>70</u>
<u>Gravel</u>	<u>70</u>	<u>79</u>

10. TYPE OF DRILLING MACHINE USED

<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Direct Rotary	<input type="checkbox"/> Reverse Rotary
<input type="checkbox"/> Rotary - air w/drilling mud	<input type="checkbox"/> Rotary - hammer with drilling mud & air	<input type="checkbox"/> Jetting with Air <input type="checkbox"/> Water

11. MISCELLANEOUS DATA

Yield test: 18 Hrs. at 25 GPM

Depth from surface to normal water level 40 ft.

Depth to water level when pumping 40 ft.

Water sample sent to Madison laboratory on: Oct 1 1974

Our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE
LaVern Helick Registered Well Driller

COMPLETE MAIL ADDRESS
345 East Ave Prairie du Sac

Please do not write in space below

OLIFORM TEST RESULT

GAS - 24 HRS.

GAS - 48 HRS.

CONFIRMED

REMARKS

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3390-15 Rev. 11

MAY 02 1978

32

COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Prarie Du Sac</u>																	
1. LOCATION <u>NE 1/4 25 T9N R6E</u>		3. NAME <u>Bill Aotta</u>		<input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE																	
OR - Grid or Street No. <u>TION R6E</u>		ADDRESS <u>R1</u>		POST OFFICE <u>Prarie Du Sac, Wis.</u>																	
AND - If available subdivision name, lot & block No. <u>Lot 10, Windsor</u>																					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building		Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer									
		C.I. Other		C.I. Other		C.I. Other		C.I. Other		C.I. Other		C.I. Other									
<u>30</u>		<u>42</u>																			
Street Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Sump		Clearwater Sump		Septic Tank		Holding Tank		Sewage Absorption Unit							
San. Storm C.I. Other		Sewer Sewage Sump Clearwater Dr. Clearwater Sump		C.I. Other		C.I. Other		Sump		Tank		Tank		Seepage Pit Seepage Bed Seepage Trench							
														<u>110</u>							
Privy		Pet Waste Pit		Pit: Nonconforming Existing		Subsurface Pumproom		Barn Gutter		Animal Barn Pen		Animal Yard		Silo With Pit		Glass Lined Storage Facility		Silo w/o Pit		Earthen Silage Storage Trench Or Pit	
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)											
5. Well is intended to supply water for: <u>Home</u>										9. FORMATIONS											
6. DRILLHOLE										Kind											
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)										From (ft.) To (ft.)											
<u>10</u> Surface <u>20</u> <u>6</u> <u>20</u> <u>278</u>										<u>sand & gravel</u> Surface <u>255</u>											
										<u>sandstone</u> <u>255</u> <u>279</u>											
7. CASING, LINER, CURBING AND SCREEN																					
Material, Weight, Specification & Method of Assembly																					
Dia. (in.) From (ft.) To (ft.)																					
<u>6</u> <u>19.45 lbs. per ft.</u> Surface <u>255</u>																					
<u>T.C. U.S.S. A53</u>																					
8. GROUT OR OTHER SEALING MATERIAL										10. TYPE OF DRILLING MACHINE USED											
Kind From (ft.) To (ft.)										<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with											
<u>clay slurry</u> Surface <u>20</u>										<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air											
										<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water											
										Well construction completed on <u>5-19-77</u>											
11. MISCELLANEOUS DATA										Well is terminated <u>8</u> inches <input type="checkbox"/> above final grade <input type="checkbox"/> below											
Yield Test: <u>24</u> Hrs. at <u>10</u> GPM										Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Depth from surface to normal water level <u>115</u> Ft.										Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Depth of water level when pumping <u>118</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No																					
Water sample sent to <u>State Lab. of Hygiene</u> laboratory on <u>4-16</u> 19 <u>78</u>																					
Signature <u>Pong Pong</u> Registered Well Driller										Complete Mail Address <u>R2 Spring Green Wis. 53588</u>											

MAY 09 1972

MAY 02 1972
WELL CONSTRUCTOR'S REPORT
Form 3300-15

Rev. 12-71

33

1. COUNTY Sanborn CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name Franklin, Wisconsin

2. LOCATION SW 1/4 Section 25 Township T42N Range R6E 3. NAME Donna Spake OWNER ☒ AGENT AT TIME OF DRILLING CHECK (✓) ONE
OR - Grid or Street No. Street Name T10N R6E ADDRESS R1

AND - If available Subdivision name, lot & block No. LOT 8 - Woodbury's sub Dune POST OFFICE Franklin, Wisconsin

4. Distance in feet from well to nearest: (Record answer in appropriate block) Building 90 Sanitary Bldg. Drain C.I. Other Sanitary Bldg. Sewer C.I. Other Floor Drain Connected To: C.I. Sewer Other Sewer Storm Bldg. Drain C.I. Other Storm Bldg. Sewer C.I. Other

Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit
San. Storm C.I. Other Sewer Sewage Sump Clearwater Dr. C.I. Other Clearwater Sump 105 Seepage Pit Seepage Bed Seepage Trench 90

Privy Pet Waste Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit
Well Pump Tank Nonconforming Existing

Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description)

5. Well is intended to supply water for: House 9. FORMATIONS

6. DRILLHOLE						9. FORMATIONS		
Dia. (in.)		From (ft.)		To (ft.)		Kind	From (ft.)	To (ft.)
10		Surface		20		sand & gravel	Surface	285
				6		sand & gravel	285	307
				26				
				307				

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification & Method of Assembly From (ft.) To (ft.)
6.5" w.p. - 2804 Well Surface 285
A53-18.92 lb. pipe
flend. U.S.S.

8. GROUT OR OTHER SEALING MATERIAL Kind From (ft.) To (ft.)
Clay slurry Surface 20

10. TYPE OF DRILLING MACHINE USED
☒ Cable Tool ☐ Rotary-hammer w/drilling mud & air ☐ Jetting with
☒ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air
☐ Rotary-w/drilling mud ☐ Reverse Rotary ☐ Water

11. MISCELLANEOUS DATA
Yield Test: 12 Hrs. at 10 GPM Well is terminated 10 inches ☒ above final grade ☐ below
Depth from surface to normal water level 90 Ft. Well disinfected upon completion ☐ Yes ☐ No
Depth of water level when pumping 96 Ft. Stabilized ☒ Yes ☐ No Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to State Lab. of Hygiene laboratory on 4-16 19 72

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature Donna Spake Complete Mail Address R2 Dune's Green Lane
Registered Well Driller

WELL CONSTRUCTOR'S REPORT NOV 27 1974
FORM 3300-15

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

35

1. COUNTY <u>Shushone</u>		CHECK ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Paris Du Lac</u>											
2. LOCATION - 1/4 Section Section Township Range <u>SE 1/4 NW 1/4 25 10N 6E</u>		3. OWNER AT TIME OF DRILLING <u>John Schubert</u>											
OR - Grid or street no. Street name		ADDRESS <u>304 - 7th St.</u>											
AND - If available subdivision name, lot & block no. <u>Windings Lot 5</u>		POST OFFICE <u>Paris Du Lac</u>											
4. Distance in feet from well to nearest: (Record answer in appropriate block)		<table border="1"> <tr> <td>BUILDING C.I.</td> <td>SANITARY SEWER C.I.</td> <td>FLOOR DRAIN C.I.</td> <td>FOUNDATION DRAIN</td> <td>WASTE WATER DRAIN C.I.</td> </tr> <tr> <td><u>38 ft</u></td> <td><u>35 ft</u></td> <td><u>48 ft</u></td> <td><u>none</u></td> <td><u>45 ft</u></td> </tr> </table>		BUILDING C.I.	SANITARY SEWER C.I.	FLOOR DRAIN C.I.	FOUNDATION DRAIN	WASTE WATER DRAIN C.I.	<u>38 ft</u>	<u>35 ft</u>	<u>48 ft</u>	<u>none</u>	<u>45 ft</u>
BUILDING C.I.	SANITARY SEWER C.I.	FLOOR DRAIN C.I.	FOUNDATION DRAIN	WASTE WATER DRAIN C.I.									
<u>38 ft</u>	<u>35 ft</u>	<u>48 ft</u>	<u>none</u>	<u>45 ft</u>									
CLEAR WATER DRAIN C.I.	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE					
<u>40 ft</u>	<u>50 ft</u>		<u>75 ft</u>										
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)													

5. Well is intended to supply water for: Home

6. DRILLHOLE						9. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
10	Surface	20				Coarse Sand Gravel Clay	Surface	60	
6	20	272				Sample Clay	60	120	
7. CASING, LINER, CURBING, AND SCREEN									
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)				From (ft.)	To (ft.)	
6"	View Stand Bels	Surface	260			Sand	120	160	
	Steel 19.18" gw					Sand Gravel	160	230	
	ft.					Sand Rock	230	272	

8. GROUT OR OTHER SEALING MATERIAL			10. TYPE OF DRILLING MACHINE USED		
Kind	From (ft.)	To (ft.)	<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Direct Rotary	<input type="checkbox"/> Reverse Rotary
<u>Drill Cuttings</u>	Surface	20	<input type="checkbox"/> Rotary - air w/drilling mud	<input type="checkbox"/> Rotary - hammer with drilling mud & air	<input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water
11. MISCELLANEOUS DATA			Well construction completed on <u>July 17 1974</u>		
Yield test: <u>20</u> Hrs. at <u>25</u> GPM	Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final grout				
Depth from surface to normal water level <u>110</u> ft.	Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Depth to water level when pumping <u>115</u> ft.	Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				

Water sample sent to Madison laboratory on: Sept 5 1974

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE <u>Leanne Helack</u> Registered Well Driller	COMPLETE MAIL ADDRESS <u>245 Park Ave Paris Du Lac</u>
Please do not write in space below	
COLIFORM TEST RESULT	GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

JAN 4 1978

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

DEC 14 1977

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev. 10-75

36

COUNTY Sauk CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name Prairie du Sac

LOCATION 10 1/4 Sec 25 Township 10 N Range 6 E 3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE
OR - Grid or Street No. Street Name ADDRESS Maynard Schultz
AND - If available subdivision name, lot & block No. POST OFFICE RR.

Distance in feet from well to nearest: (Record answer in appropriate block) Building 6 ft Sanitary Bldg. Drain C.I. 40 ft Other Sanitary Bldg. Sewer C.I. 30 ft Other Floor Drain Connected To: C.I. 25 ft Other Sewer Storm Bldg. Drain C.I. Other Storm Bldg. Sewer C.I. Other

Street Sewer San. Storm C.I. Other Foundation Drain Connected to Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit Seepage Pit 75 ft Seepage Bed Seepage Trench

Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit

Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description)

J. Well is intended to supply water for: Home 9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Sand & Gravel</u>	<u>Surface</u>	<u>75</u>
<u>Sand</u>	<u>75</u>	<u>200</u>
<u>Sand Rock</u>	<u>200</u>	<u>256</u>

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
<u>6"</u>	<u>Newstand Bldk</u>	<u>Surface</u>	<u>238</u>
<u>Steel</u>	<u>19.45 ft</u>		
<u>15+ MA 53</u>	<u>Sumitomo Metal Ltd</u>		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Drill Cuttings</u>	<u>Surface</u>	<u>20</u>

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Rotary-hammer w/drilling mud & air ☐ Jetting with ☐ Air ☐ Water

☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air

☐ Rotary-w/drilling mud ☐ Reverse Rotary

11. MISCELLANEOUS DATA

Yield Test: 15 Hrs. at 25 GPM Well is terminated 10 inches ☒ above final grade ☐ below

Depth from surface to normal water level 100 Ft. Well disinfected upon completion ☒ Yes ☐ No

Depth of water level when pumping 100 Ft. Stabilized ☒ Yes ☐ No Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on Apr. 4 1977

Opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of washing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Complete Mail Address

Printed Name of Well Driller

245 Park Ave Prairie du Sac

WELL CONSTRUCTOR'S REPORT

DEPARTMENT OF RESOURCE DEVELOPMENT

1. COUNTY Shawano CHECK ONE ☒ Town ☐ Village ☐ City NAME Piscine du Lac

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)
SW 1/4 Sec 25 T10N R6E

3. OWNER AT TIME OF DRILLING Ted Meyer

4. OWNER'S COMPLETE MAIL ADDRESS
434 S Washington Ave Cedarburg, Wis

5. Distance in feet from well to nearest:

BUILDING C.I.	SANITARY C.I.	SEWER TILE	FLOOR DRAIN C.I.	FOUNDATION DRAIN C.I.	WASTE WATER DRAIN C.I.
50 ft	75 ft	70 ft	none	70 ft	

(Record answer in appropriate block)

CLEAR WATER DRAIN C.I.	SEPTIC TANK TILE	PRIVY	SEEPAGE PIT	Absorption Field	BARN	SILLO	ABANDONED WELL	SINK HOLE
60 ft	60		75					

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for:

Home

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	Surface	265			

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	New Stand Bch Steel J-C	Surface	253
	19.45 guff		

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand Gravel	Surface	50
Sand	50	125
Sand & Gravel	125	200
Sand Rock	200	265

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Surface		

11. MISCELLANEOUS DATA

Yield test: 15 Hrs. at 15 GPM

Well construction completed on June 16 1969

Well is terminated 12 inches ☒ above ☐ below final grade

Depth from surface to normal water level 95 ft. Well disinfected upon completion ☒ Yes ☐ No

Depth to water level when pumping 95 ft. Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on: June 17 1969

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to near wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, surface pumphrooms, access pits, etc., should be given on reverse side.

SIGNATURE Laverne Melch Registered Well Driller COMPLETE MAIL ADDRESS 245 Park Ave Piscine du Lac

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
----------------------	---------------	---------------	-----------	---------

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev. 10-75

38

COUNTY Sauk CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name Prairie du Sac

LOCATION NE 1/4 Sec 25 T10N R6E 3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE
OR - Grid or Street No. Street Name ADDRESS RR Prairie du Sac, Wis
AND - If available subdivision name, lot & block No. POST OFFICE

Distance in feet from well to nearest: (Record answer in appropriate block)	Building	Sanitary Bldg. Drain	Sanitary Bldg. Sewer	Floor Drain Connected To:	Storm Bldg. Drain	Storm Bldg. Sewer
	6 ft	C.I. 30 ft	C.I. 35 ft	Other none	C.I.	Other

Street Sewer	Other Sewers	Foundation Drain	Connected to	Sewage Sump	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit
San. Storm C.I. Other	Sewer Clearwater Dr.	Sewage Sump Clearwater Sump	C.I. Other			50 ft		Seepage Pit Seepage Bed Seepage Trench 75 ft

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit
		Well Pump Tank	Nonconforming Existing							

Temporary Manure Stack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

6. Well is intended to supply water for: Home

7. CASING, LINER, CURBING AND SCREEN
Material, Weight, Specification & Method of Assembly

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
18	Surface	20			
20		248			

6" New Stand Bellows Surface 233
19.45" 2 1/2" J & C.
45TH A 53
Sumitomo Metals Ad.

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drill Cuttings	Surface	20

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Topsoil	Surface	3
Sand	3	75
Sand & Gravel	75	210
Sand Rock	210	248

10. TYPE OF DRILLING MACHINE USED

<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Rotary-hammer w/drilling mud & air	<input type="checkbox"/> Jetting with
<input type="checkbox"/> Rotary-air w/drilling mud	<input type="checkbox"/> Rotary-hammer & air	<input type="checkbox"/> Air
<input type="checkbox"/> Rotary-w/drilling mud	<input type="checkbox"/> Reverse Rotary	<input type="checkbox"/> Water

11. MISCELLANEOUS DATA

Yield Test: 15 Hrs. at 20 GPM

Depth from surface to normal water level 110 Ft.

Depth of water level when pumping 110 Ft. Stabilized ☒ Yes ☐ No

Well construction completed on Aug 11 19 77

Well is terminated 10 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on Aug 12 19 77

Opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Complete Mail Address

PO 9101 200 E. 1st St. Prairie du Sac, Wis.

1. COUNTY <u>Sauk</u>		CHECK (1) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Prairie du Sac</u>	
2. LOCATION <u>Section 25</u> <u>Range 6E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <u>Roger Howard</u>		AGENT AT TIME OF DRILLING CHECK (1) ONE	
OR - Grid or Street No. <u>Windinga</u>		ADDRESS <u>RR</u>		POST OFFICE <u>Prairie du Sac, Wis</u>	
AND - If available subdivision name, lot & block No.					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building Sanitary Bldg. Drain Sanitary Bldg. Sewer Floor Drain Connected To: Storm Bldg. Drain Storm Bldg. Sewer			
San. Storm C.I. Other		C.I. Other C.I. Other C.I. Other C.I. Other			
Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit		San. Storm C.I. Other Sewer Clearwater Dr. Clearwater Sump C.I. Other C.I. Other C.I. Other C.I. Other			
Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit		Well Pump Clearwater Dr. Clearwater Sump C.I. Other C.I. Other C.I. Other C.I. Other			
Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description)					
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>Sand Gravelly</u> Surface 30			
<u>10</u> Surface <u>15</u>		<u>Sand Gravel</u> 30 125			
<u>6</u> <u>15</u> <u>275</u>		<u>Sand</u> 125 225			
7. CASING, LINER, CURBING AND SCREEN		<u>Sand Rock</u> 225 275			
Material, Weight, Specification & Method of Assembly		* Sec 4-22-82 letter in W.D. file			
Dia. (in.) From (ft.) To (ft.)					
<u>6" New Stand Pipe</u> Surface <u>264</u>					
<u>19.45" New 7.5" C.</u>					
<u>Summitone Metals</u>					
<u>ASTMA 53</u>					
8. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
<u>Drill Cuttings</u> Surface <u>15</u>		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>April 29</u> 19 <u>80</u>			
Yield Test: <u>12</u> Hrs. at <u>20</u> GPM		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>110</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>110</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>April 30</u> 19 <u>80</u>					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>L. J. Hoke</u>		Complete Mail Address <u>215 Parlane Prairie du Sac</u>			

JAN 30 1978

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State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev. 10-75

COUNTY Sauk CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name Prairie du Sac

LOCATION 1/2 NW 1/4 Section 25 Township 10N Range 6E 3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE Fred Rango

OR - Grid or Street No. Wendy Street Name Wendy ADDRESS Sauk City, Wis

AND - If available subdivision name, lot & block No. Wendy POST OFFICE Sauk City, Wis

4. Distance in feet from well to nearest: (Record answer in appropriate block)

Building	Sanitary Bldg. Drain	Sanitary Bldg. Sewer	Floor Drain Connected To:	Storm Bldg. Drain	Storm Bldg. Sewer
10 ft	C.I. 48 ft	C.I. 55 ft	C.I. 40 ft	C.I.	C.I.
Other	Other	Other	Other	Other	Other

Street Sewer: San. Storm C.I. Other

Other Sewers: Foundation Drain Connected to: Sewage Sump Clearwater Sump

Sewage Sump: C.I. Other

Clearwater Sump: 60 ft

Sewage Absorption Unit: Seepage Pit Seepage Bed Seepage Trench 75 ft

Privy: Pet Waste Pit Pit: Nonconforming Existing Well Pump Tank Subsurface Pumproom Nonconforming Existing Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit

Temporary Manure Stack: Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description)

Well is intended to supply water for: Home

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Topsoil</u>	<u>Surface</u>	<u>6</u>
<u>Sand & Gravel</u>	<u>6</u>	<u>75</u>
<u>Sand & Clay</u>	<u>75</u>	<u>125</u>
<u>Sand</u>	<u>125</u>	<u>225</u>
<u>Sand Rock</u>	<u>225</u>	<u>267</u>

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
<u>6"</u>	<u>Steel Screened Bell Hole</u>	<u>Surface</u>	<u>256</u>
<u>9.45"</u>	<u>Steel Pipe</u>		
<u>ASTM A53</u>			
<u>Sumitomo Metal Ltd.</u>			

6. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Drill Cuttings</u>	<u>Surface</u>	<u>20</u>

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Rotary-hammer w/drilling mud & air ☐ Jetting with

☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Air

☐ Rotary-w/drilling mud ☐ Reverse Rotary ☐ Water

Well construction completed on Aug 18 19 77

Well is terminated 10 inches ☒ above final grade ☐ below

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

1. MISCELLANEOUS DATA

Yield Test: 15 Hrs. at 25 GPM

Depth from surface to normal water level 100 Ft.

Depth of water level when pumping 110 Ft. Stabilized ☒ Yes ☐ No

Water sample sent to Madison laboratory on Aug 19 19 77

Opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Complete Mail Address

P.V. H. D. R.

241 Prairie Du Sac Ave.

NOV 21 1975

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

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NOTE

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GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

1. COUNTY <u>Sauk</u>		CHECK ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Prairie du Sac</u>	
2. LOCATION - 1/4 Section <u>NE 1/4</u> Section <u>25</u> Township <u>10N</u> Range <u>6E</u>		3. OWNER AT TIME OF DRILLING <u>Drug Vacker</u>	
OR <u>Grid or street no.</u> <u>150 NVE</u> Street name		ADDRESS <u>R7D</u>	
AND - If available subdivision name, lot & block no. <u>Admitted Windinglot 2</u>		POST OFFICE <u>Prairie du Sac</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING SANITARY SEWER FLOOR DRAIN C.I. TILE C.I. TILE C.I. TILE <u>10ft</u> <u>25ft</u> <u>30ft</u>	
		FOUNDATION DRAIN SEWER CONNECTED INDEPENDENT <u>none</u>	
		WASTE WATER DRAIN C.I. TILE <u>25ft</u>	
CLEAR WATER DRAIN C.I. TILE <u>40ft</u>	SEPTIC TANK <u>50ft</u>	PRIVY <u>75ft</u>	SEEPAGE PIT <u>75ft</u>
ABSORPTION FIELD BARN SILO ABANDONED WELL SINK HOLE			
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)			

5. Well is intended to supply water for:

Home

6. DRILLHOLE						9. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
<u>10</u>	<u>Surface</u>	<u>15</u>				<u>Topsoil</u>	<u>Surface</u>	<u>5</u>	
<u>6</u>	<u>15</u>	<u>258</u>				<u>Sand Gravel Clay</u>	<u>5</u>	<u>15</u>	
7. CASING, LINER, CURBING, AND SCREEN									
Dia. (in.)	Kind and Weight		From (ft.)	To (ft.)					
<u>6"</u>	<u>New Standard Bk</u>		<u>Surface</u>	<u>248</u>		<u>Sand</u>	<u>15</u>	<u>85</u>	
	<u>Steel 19.18" dia</u>					<u>Sand Gravel</u>	<u>85</u>	<u>175</u>	
	<u>ft FeC</u>					<u>Sand Rock</u>	<u>175</u>	<u>255</u>	

8. GROUT OR OTHER SEALING MATERIAL			10. TYPE OF DRILLING MACHINE USED		
Kind	From (ft.)	To (ft.)	<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Direct Rotary	<input type="checkbox"/> Reverse Rotary
<u>Drill Cuttings</u>	<u>Surface</u>	<u>15</u>	<input type="checkbox"/> Rotary - air w/drilling mud	<input type="checkbox"/> Rotary - hammer with drilling mud & air	<input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Wa
11. MISCELLANEOUS DATA			Well construction completed on <u>April 8 1975</u>		
Yield test: <u>15</u>	Hrs. at <u>25</u>	GPM	Well is terminated <u>8</u> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final gr.		
Depth from surface to normal water level <u>88</u> ft.			Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Depth to water level when pumping <u>88</u> ft.			Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

Water sample sent to

Madison laboratory on: April 9 1975

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, s. s. type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE L. Verne Helbach Registered Well Driller
COMPLETE MAIL ADDRESS 245 Park Ave Prairie du Sac

Please do not write in space below

COLIFORM TEST RESULT GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS

APR 14 1978

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

42

NTY Sauk CHECK ONE ☒ Town ☐ Village ☐ City Prairie Du Sac

LOCATION - 1/4 Section W44 Section 25 Township R6E Range 11

3. OWNER AT TIME OF DRILLING Bill Castle

OR - Grid or street no. Street name ADDRESS Rt 1

ID - If available subdivision name, lot & block no. POST OFFICE Sauk City, Wis.

4. Distance in feet from well to nearest:

BUILDING	SANITARY C. I.	SEWER TILE	FLOOR DRAIN C. I.	TILE	FOUNDATION DRAIN	SEWER CONNECTED	INDEPENDENT	WASTE WATER DRAIN C. I.	TILE
30	45	—	—	—	—	—	—	—	—

(Record answer in appropriate block)

CLEAR WATER DRAIN C. I.	TILE	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
—	—	48	—	—	58	—	—	—	—

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

Well is intended to supply water for: House

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	9. FORMATIONS	Kind	From (ft.)	To (ft.)
10	Surface	20	6	20	263	sand & gravel	Surface	237	
						sand stone	237	263	

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
19.45 lbs. per ft.	155. A 53	Surface	239

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
clay slurry	Surface	20

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary

☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☐ Jetting with ☐ Air ☐ Water

MISCELLANEOUS DATA

old test: 48 Hrs. at 15 GPM

Depth from surface to normal water level 78 ft.

Depth to water level when pumping 84 ft.

Water sample sent to State Lab. of Hygiene laboratory on: 3-29 19 77

Our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE Ray from Registered Well Driller

COMPLETE MAIL ADDRESS Rt. 2 Spring Green, Wis.

Please do not write in space below

UNIFORM TEST RESULT

GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS

WELL CONSTRUCTOR'S REPORT
FORM 3300-15

DEC 16 1974

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NOTE

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GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

1. COUNTY Lancaster CHECK ONE ☒ Town ☐ Village ☐ City Presque Isle

2. LOCATION - 1/4 Section 14 Section 35 Township 10N Range 6E 3. OWNER AT TIME OF DRILLING Harry Roelke

OR - Grid or street no. Street name ADDRESS

AND - If available subdivision name, lot & block no. U. Extensions POST OFFICE Lancaster City, Wis.

4. Distance in feet from well to nearest: BUILDING C.I. 8ft SANITARY SEWER TILE 20ft FLOOR DRAIN C.I. 25ft FOUNDATION DRAIN none WASTE WATER DRAIN C.I. 20ft

(Record answer in appropriate block)

CLEAR WATER DRAIN C.I. 18ft TILE SEPTIC TANK 75ft PRIVY 100ft SEEPAGE PIT ABSORPTION FIELD BARN SILO ABANDONED WELL SINK HOLE

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20			
6	20	263			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	New Star Bk Steel	Surface	256
	19.18 # galv. L.C.		

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Carving sand Gravel & Clay	Surface	40
Sand & Gravel	40	110
Sand & Clay	110	160
Sand	160	200
Sand Rock	200	263

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drill Cuttings	Surface	20

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary

☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☐ Jetting with Air ☐ Wa

Well construction completed on Oct 1 1974

11. MISCELLANEOUS DATA

Yield test: 18 Hrs. at 25 GPM

Well is terminated 10 inches ☒ above ☐ below final gr.

Depth from surface to normal water level 105 ft. Well disinfected upon completion ☒ Yes ☐ No

Depth to water level when pumping 105 ft. Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on: Oct 3 1974

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE L. Verne Helsch Registered Well Driller COMPLETE MAIL ADDRESS 245 Park Ave Presque Isle

Please do not write in space below

COLIFORM TEST RESULT GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS

WELL CONSTRUCTOR'S REPORT
FORM 3300-15

NOTE

DEC 16 1974

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

44

COUNTY Lanc CHECK ONE ☒ Town ☐ Village ☐ City Plain Du Lac

LOCATION 1/4 Section 25 Township 10N Range 6E 3. OWNER AT TIME OF DRILLING Robert H. Conner

OR - Grid of street no. Street name ADDRESS Rte 2

D - If available subdivision name, lot & block no. Windings Lot 4 POST OFFICE Lodi, Wis

Distance in feet from well to nearest:

BUILDING C.I.	SANITARY SEWER TILE	FLOOR DRAIN C.I.	FOUNDATION DRAIN	WASTE WATER DRAIN C.I.
<u>18ft</u>	<u>30ft</u>	<u>38ft</u>	<u>none</u>	<u>23ft</u>

(Record answer in appropriate block)

CLEAR WATER DRAIN C.I.	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
<u>2.5ft</u>	<u>75ft</u>	<u>100ft</u>						

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>10</u>	<u>Surface</u>	<u>20</u>			
<u>6</u>	<u>20</u>	<u>280</u>			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
<u>10</u>	<u>New Stand Bch</u>	<u>Surface</u>	<u>272</u>
	<u>Steel 19.18#</u>		

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Coarse Sand Gravel Clay</u>	<u>Surface</u>	<u>85</u>
<u>Clay + Sand</u>	<u>85</u>	<u>125</u>
<u>Sand</u>	<u>125</u>	<u>250</u>
<u>Sand Rock</u>	<u>250</u>	<u>280</u>

GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Drill Cuttings</u>	<u>Surface</u>	<u>20</u>

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary

☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☐ Jetting with Air ☐ Water

Well construction completed on Feb 28 1974

MISCELLANEOUS DATA

eld test: 18 Hrs. at 25 GPM

Depth from surface to normal water level 115 ft.

Depth to water level when pumping 125 ft.

Water sample sent to Madison laboratory on: Mar 27 1974

Well is terminated 8 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE Gene Thelach Registered Well Driller COMPLETE MAIL ADDRESS 245 Park Ave Plain Du Lac

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
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WELL CONSTRUCTOR'S REPORT
FORM 3300-15

DEC 11 1973

DEC 05 1973

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STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

NOTE
WHITE COPY - DIVISION'S COPY
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YELLOW COPY - OWNER'S COPY

1. COUNTY Sauk CHECK ONE ☒ Town ☐ Village ☐ City Prairie du Sac

2. LOCATION Section 14 Township 25 Range 10N 6E

OR - Grid or street no. Street name

3. OWNER AT TIME OF DRILLING Jerome Ernst

ADDRESS 193 Interlaken Rd.

POST OFFICE Farmington, Minn.

AND - If available subdivision name, lot & block no. The Woodings Lot 24

4. Distance in feet from well to nearest:

BUILDING C.I.	SANITARY SEWER C.I.	FLOOR DRAIN C.I.	FOUNDATION DRAIN C.I.	SEWER CONNECTED	WASTE WATER DRAIN C.I.
7 ft	30 ft	35 ft	none	none	15 ft

(Record answer in appropriate block)

CLEAR WATER DRAIN C.I.	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
20 ft	40		75					

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	10			
6	10	270			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	New Stand Bek Steel	Surface	260

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand & Clay	Surface	15
Coarse Sand & Clay	15	60
Sand	60	125
Sand & Heavy Clay	125	245
Sand Rock	245	270

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drill Cuttings	Surface	10

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary

☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☐ Jetting with ☐ Air ☐ Water

Well construction completed on Nov 29 1973

11. MISCELLANEOUS DATA

Yield test: 15 Hrs. at 20 GPM

Depth from surface to normal water level 112 ft.

Depth to water level when pumping 125 ft.

Well is terminated 10 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on: Nov 30 1973

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE LeRoy E. Kelsch Registered Well Driller

COMPLETE MAIL ADDRESS 245 Park Ave Prairie du Sac

Please do not write in space below

COLIFORM TEST RESULT GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS

WELL CONSTRUCTOR'S REPORT
FORM 3300-15

DEC 16 1974

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NOTE

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YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

1. LOCATION - *Sauk* CHECK ONE ☒ Town ☐ Village ☐ City *Prairie Du Sac*

2. OWNER AT TIME OF DRILLING *Quana Engle*

3. ADDRESS *R.R.*

4. POST OFFICE *Prairie Du Sac*

5. DISTANCE IN FEET FROM WELL TO NEAREST:

BUILDING C.I.	SANITARY SEWER C.I.	FLOOR DRAIN C.I.	FOUNDATION DRAIN	WASTE WATER DRAIN
30 ft	50 ft	60 ft	none	55 ft

(Record answer in appropriate block)

CLEAR WATER DRAIN C.I.	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
3 ft	100 ft			125 ft				

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: *Home*

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	20			
5	20	288			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
	New Standard B&K	Surface	270
	Steel 19.18" per ft J&C		

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Gravel Sand Gravel Clay + boulders	Surface	65
Sand + Gravel	65	120
Sand + clay	120	160
Sand	160	240
Sand Rock	240	288

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drill Cuttings	Surface	20

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary

☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☐ Jetting with Air ☐ Water

Well construction completed on *October 21 1974*

11. MISCELLANEOUS DATA

12. Well test: *15* Hrs. at *25* GPM

Depth from surface to normal water level *100* ft.

Depth to water level when pumping *110* ft.

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to *Madison* laboratory on: *October 23 1974*

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

13. SIGNATURE *Verne Helsch* Registered Well Driller

COMPLETE MAIL ADDRESS *345 Park Ave Prairie Du Sac*

Please do not write in space below

COLIFORM TEST RESULT GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS

OCT 14 1977

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15

Rev. 12-76

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1. COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Prarie Du Sac</u>	
2. LOCATION <u>SW SE 25 10 6</u>		3. NAME <u>Lloyd Mueller</u> ADDRESS <u>Rt. 1</u> POST OFFICE <u>Prarie Du Sac, Wis 5357</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>19</u> Sanitary Bldg. Drain <u>C.I.</u> Sanitary Bldg. Sewer <u>C.I.</u> Floor Drain Connected To: <u>52</u> Storm Bldg. Drain <u>C.I.</u> Storm Bldg. Sewer <u>C.I.</u>	
Street Sewer <u>San.</u> Other Sewers <u>Other</u> Foundation Drain Connected to: <u>Sewage Sump</u> Clearwater Sump <u>65</u> Septic Tank <u>65</u> Holding Tank <u>65</u> Sewage Absorption Unit <u>Seepage Pit</u> <u>Seepage Bed</u> <u>Seepage Trench</u>		San. <u>San.</u> Storm <u>Other</u> C.I. <u>C.I.</u> Other <u>Other</u> Sewer <u>Sewage Sump</u> Clearwater Dr. <u>Clearwater Sump</u> Clearwater Sump <u>65</u> Septic Tank <u>65</u> Holding Tank <u>65</u> Sewage Absorption Unit <u>Seepage Pit</u> <u>Seepage Bed</u> <u>Seepage Trench</u>	
Privy <u>Pit: Nonconforming Existing</u> Pet Waste Pit <u>Well</u> Pump <u>Nonconforming Existing</u> Tank <u>Nonconforming Existing</u>		Barn Gutter <u>122</u> Animal Barn Pen <u>130</u> Animal Yard <u>130</u> Silo With Pit <u>123</u> Glass Lined Storage Facility <u>123</u> Silo w/o Pit <u>123</u> Earthen Silage Storage Trench Or Pit <u>123</u>	
Temporary Manure Stack <u>Watertight Liquid Manure Tank</u> Solid Manure Storage Structure <u>Subsurface Gasoline or Oil Tank</u> Waste Pond or Land Disposal Unit (Specify Type) <u>Other (Give Description)</u>			
5. Well is intended to supply water for: <u>farm</u>		9. FORMATIONS Kind <u>sand & gravel</u> From (ft.) <u>Surface</u> To (ft.) <u>163</u>	
6. DRILLHOLE Dia. (in.) <u>6</u> From (ft.) <u>Surface</u> To (ft.) <u>163</u>			
7. CASING, LINER, CURBING AND SCREEN Material, Weight, Specification & Method of Assembly Dia. (in.) <u>6</u> <u>new steel ASTM A53</u> <u>19.45 x 1/2 C</u> <u>Jones & Laughlin</u> <u>Johnston no 25 slot</u> <u>55704 screen</u> From (ft.) <u>Surface</u> To (ft.) <u>160</u> <u>160</u> <u>163</u>			
8. GROUT OR OTHER SEALING MATERIAL Kind <u>Surface</u> From (ft.) <u>Surface</u> To (ft.) <u>Surface</u>		10. TYPE OF DRILLING MACHINE USED <input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Rotary-w/drilling mud	
11. MISCELLANEOUS DATA Yield Test: <u>3</u> Hrs. at <u>28</u> GPM Depth from surface to normal water level <u>87</u> Ft. Depth of water level when pumping <u>91</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Water sample sent to <u>Madison</u> laboratory on <u>Sept. 28</u> 19 <u>77</u>		Well construction completed on <u>Sept 20</u> 19 <u>77</u> Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Signature <u>William J. Smith</u> Registered Well Driller		Complete Mail Address <u>Rt. 4 Burdett, Wis 53913</u>	

WISCONSIN UNIQUE WELL NUMBER **018**Department of Natural Resources
Private Water Supply - W3/2
Box 7921
Madison, WI 53707

47

Property Owner **Jean Mueller**

Telephone Number

Mailing Address

Hwy 78

City

Prairie du Sac

State

WI

Zip Code

County of Well Location

Sauk

County Well Location Permit No.

W

Well Completion Date

11 28 90

M H D D Y Y

Well Constructor (Business Name)

WATER WELLS INC.

Registration #

3

Address

6400 Lake Road

City

Windsor

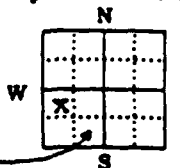
State

WI

Zip Code

53598

2. Mark well location in correct 40-acre parcel of section.



1. Location

(Please type or print using a black pen.)

☒ Town ☐ City ☐ Village ☐ Fire # (if available)of **Prairie du Sac**

Grid or Street Address or Road Name and Number (if available)

Hwy 78

Subdivision Name

Lot #

Block #

Gov't Lot 25 or NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of Section 10 T 10 N R 6 E ☒ W

3. Well Type

☐ New☒ Replacement☐ Reconstruction

of unique well # _____ constructed in 19 _____

Reason for new, replaced or reconstructed well?

Present well contaminated

4. Well serves 1 # of homes and/or _____
(ex: barn, restaurant, church, school, industry, etc.)High Capacity Well? ☐ Yes ☒ NoHigh Capacity Property? ☐ Yes ☒ No5. Well Located on Highest Point of Property, Consistent with the General Layout and Surroundings? ☒ Yes ☐ No If no, explain on back side.Well Located in Floodplain? ☐ Yes ☒ No

Distance in Feet From Well To Nearest:

- 30 1. Landfill
- 60 2. Building Overhang
- 60 3. Septic or Holding Tank
4. Sewage Absorption Unit
5. Nonconforming Pit
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline/Swimming Pool

9. Downspout/Yard Hydrant

10. Privy

11. Foundation Drain to Clearwater

12. Foundation Drain to Sewer

13. Building Drain

☐ Cast Iron or Plastic ☐ Other14. Building Sewer ☐ Gravity ☐ Pressure☐ Cast Iron or Plastic ☐ Other

15. Collector or Street Sewer

16. Clearwater Sump

17. Wastewater Sump

18. Paved Animal Barn Pen

19. Animal Yard or Shelter

20. Silo - Type _____

21. Barn Gutter

22. Manure Pipe ☐ Gravity ☐ Pressure☐ Cast Iron or Plastic ☐ Other

23. Other Manure Storage _____

Other NR 112 Waste Source

24. _____

6. Drillhole Dimensions

From To
(ft.) (ft.)

10 surface 274

6 274 356

Method of constructing upper enlarged drillhole only.

☒ 1. Rotary - Mud Circulation☐ 2. Rotary - Air☐ 3. Rotary - Foam☐ 4. Reverse Rotary☐ 5. Cable-tool Bit _____ in. dia.☐ 6. Temp. Outer Casing _____ in. dia.Removed? ☐ Yes ☐ No

If no, explain _____

☐ 7. Other _____DWS
ONE
ONLY

9.

Geology

Type, Caving/Noncaving, Color, Hardness, Etc.

From To
(ft.) (ft.)

Fine gravel, coarse sand

surface 120

Medium gravel

120 145

Fine -medium gravel

145 224

Gray limestone w/clay layer

224 274

Sandy limestone

274 356

Casing, Liner, Screen
Material, Weight, Specification
Mfg. & Method of Assembly

Dia. (in.)

From
(ft.)To
(ft.)

6 Std. steel PE new

surface

274

18.97 lbs .280 wall

Saw-hill ASTMA-53

10. Static Water Level

_____ ft. above ground level

130 ft. below ground surface

12. Well Is:

24 in. ☒ Above ☐ Below GradeDeveloped? ☒ Yes ☐ NoDisinfected? ☒ Yes ☐ NoCapped? ☒ Yes ☐ No

8. Great or Other Sealing Material

Method **Halliburton**From
(ft.)To
(ft.)Sacks
Cement

Kind of Sealing Material

Neat cement

surface

274

85

11. Pump Test

Pumping Level 260 below surfacePumping at 20 GPM for 1 hours

13. Did you permanently seal all unused, noncomplying, or unsafe wells?

☐ Yes ☒ NoIf no, explain still in use

14. Signature of Point Driver or Registered Driller

Date Signed

Signature of Drill Rig Operator

Date Signed

Make additional comments on reverse side about geology, etc.

WELL CONSTRUCTOR

WELL CONSTRUCTION REPORT

Form 3300-77A

Rev. 9-88

WISCONSIN UNIQUE WELL NUMBER 018

Department of Natural Resources
Private Water Supply - WS2
Box 7821
Madison, WI 53707

47

Property Owner **Jean Mueller** Telephone Number _____
Mailing Address _____
Box 78
City _____ State **WI** Zip Code **53578**
County of Well Location **Sauk** Permit No. **W** Well Completion Date **2/20/91**
M M D D Y Y

1. Location (Please type or print using a black pen.)
☒ Town ☐ City ☐ Village Fire # (if available) _____
of **Prairie du Sac**
Grid or Street Address or Road Name and Number (if available)
Hwy 78
Subdivision Name _____ Lot # _____ Block # _____

Well Constructor (Business Name) **WATER WELLS INC.** Registration # **3**
Address **6400 Lake Road**
City **Windsor** State **WI** Zip Code **53598**

2. Mark well location in correct 40-acre parcel of section.
N
.....
.....
.....
.....
S
W X E

Gov't Lot # _____ or NW 1/4 of SW 1/4 of Section **25** T **10** N: R **6** E W

3. Well Type ☐ New ☒ Replacement ☒ Reconstruction

of unique well # _____ constructed in 19 _____
Reason for new, replaced or reconstructed well?
to lower iron content

4. Well serves 1 # of homes and/or _____
(ex: barn, restaurant, church, school, industry, etc.)
High Capacity Well? ☐ Yes ☒ No
High Capacity Property? ☐ Yes ☒ No

☒ Drilled ☐ Driven Point ☐ Jetted ☐ Other _____

5. Well Located on Highest Point of Property, Consistent with the General Layout and Surroundings? ☒ Yes ☐ No If no, explain on back side.
Well Located in Floodplain? ☐ Yes ☒ No **60**
Distance In Feet From Well To Nearest:
1. Landfill **30**
2. Building Overhang **60**
3. Septic or Holding Tank **60**
4. Sewage Absorption Unit
5. Nonconforming Pit **65**
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline/Swimming Pool
9. Downspout/Yard Hydrant
10. Privy
11. Foundation Drain to Clearwater
12. Foundation Drain to Sewer
13. Building Drain
14. Building Sewer ☒ Gravity ☐ Pressure
15. Collector or Street Sewer
16. Clearwater Sump
17. Wastewater Sump
18. Paved Animal Barn Pen
19. Animal Yard or Shelter
20. Silo - Type
21. Barn Gutter
22. Manure Pipe ☐ Gravity ☐ Pressure
23. Other Manure Storage
Other NR 113 Waste Source
24. _____

6. Drillhole Dimensions
From To
Dia. (in.) (ft.) (ft.)
surface
6 356 513
5 513 523
Method of constructing upper enlarged drillhole only.
☒ 1. Rotary - Mud Circulation
☐ 2. Rotary - Air
☐ 3. Rotary - Foam
☐ 4. Reverse Rotary
☐ 5. Cable-tool Bit _____ in. dia.
☐ 6. Temp. Outer Casing _____ in. dia.
Removed? ☐ Yes ☒ No
If no, explain _____
☐ 7. Other _____

9. Geology
Type, Caving/Noncaving, Color, Hardness, Etc. From (ft.) To (ft.)
Shaley limestone 356 500
Sandstone, white 500 523

7. Casing, Liner, Screen
Material, Weight, Specification From To
Dia. (in.) Mfg. & Method of Assembly (ft.) (ft.)
surface
5 Std. steel PE new 264 513

10. Static Water Level _____ ft. above ground level
28 ft. below ground surface
11. Pump Test
Pumping Level **523** ft. below surface
Pumping at **100** GPM for **2** hours
12. Well Is: ☒ Above Grade ☐ Below
10 in. Developed? ☒ Yes ☐ No
Disinfected? ☒ Yes ☐ No
Capped? ☒ Yes ☐ No

8. Grout or Other Sealing Material
Method **NA**
Kind of Sealing Material From To Sacks Cement
surface
5 X 6 K Packer- top
and bottom

13. Did you permanently seal all unused, noncomplying, or unsafe wells?
☒ Yes ☐ No If no, explain **to be abandoned**
14. Signature of Point Driver or Registered Driller **James B. Buehler** Date Signed **2/28/91**
Signature of Drill Rig Operator **James B. Buehler** Date Signed **2/28/91**

Make additional comments on reverse side about geology, etc.

WELL OWNER

WELL CONSTRUCTION REPORT
Form 3300-77A Rev. 9-88

WISCONSIN UNIQUE WELL NUMBER **WU 019**

Department of Natural Resources
Private Water Supply - WS/2
Box 7921
Madison, WI 53707

47

Property Owner **Viola Gruber** Telephone Number _____
Mailing Address _____
Rwy 78
City _____ State **WI** Zip Code **5**
County of Well Location _____ County Well Location _____
Location **Sauk** Permit No. **W** Well Completion Date **11/28/90**

1. Location (Please type or print using a black pen.)
☒ Town ☐ City ☐ Village Fire # (if available) _____
of **Prairie du Sac**
Grid or Street Address or Road Name and Number (if available) _____
Subdivision Name _____ Lot # _____ Block # _____

Well Constructor (Business Name) Registration #
WATER WELLS INC. 3
Address _____
6400 Lake Road
City **Windsor** State **WI** Zip Code **53598**

2. Mark well location in correct 40-acre parcel of section.
N
W
S

Gov't Lot # _____ or NE 1/4 of NW 1/4 of Section **36** T **9** N: R **10** E ☒ W
3. Well Type ☐ New ☒ Replacement ☐ Reconstruction
of unique well # _____ constructed in 19 _____
Reason for new, replaced or reconstructed well?
Present well contaminated

4. Well serves _____ of homes and/or **farm** High Capacity Well? ☐ Yes ☒ No
(ex: barn, restaurant, church, school, industry, etc.) High Capacity Property? ☐ Yes ☒ No

Well Located on Highest Point of Property, Consistent with the General Layout and Surroundings? ☒ Yes ☐ No If no, explain on back side.
Well Located in Floodplain? ☐ Yes ☒ No **160** 9. Downspout/Yard Hydrant _____
Distance In Feet From Well To Nearest:
1. Landfill _____ 10. Privy _____
2. Building Overhang _____ 11. Foundation Drain to Clearwater **50**
3. Septic or Holding Tank **200** 12. Foundation Drain to Sewer _____
4. Sewage Absorption Unit **140** 13. Building Drain _____
5. Nonconforming Pit **215** ☒ Cast Iron or Plastic ☐ Other _____
6. Buried Home Heating Oil Tank _____ 14. Building Sewer ☐ Gravity ☐ Pressure _____
7. Buried Petroleum Tank _____ ☒ Cast Iron or Plastic ☐ Other _____
8. Shoreline/Swimming Pool _____ 15. Collector or Street Sewer _____
16. Clearwater Sump _____ 17. Wastewater Sump _____
18. Paved Animal Barn Pen _____
19. Animal Yard or Shelter _____
20. Silo - Type _____
21. Barn Gutter _____
22. Manure Pipe ☐ Gravity ☐ Pressure _____
☐ Cast Iron or Plastic ☐ Other _____
23. Other Manure Storage _____
Other NE 112 Waste Source _____
24. _____

6. Drillhole Dimensions
From To
(in.) (ft.) (ft.)
10 surface **276**
6 **276** **335**
Method of constructing or per enlarged drillhole only.
☒ 1. Rotary - Mud Circulation **276**
☐ 2. Rotary - Air
☐ 3. Rotary - Foam
☐ 4. Reverse Rotary
☐ 5. Cable-tool Bit _____ in. dia.
☐ 6. Temp. Outer Casing _____ in. dia.
Removed? ☐ Yes ☐ No
If no, explain _____
☐ 7. Other _____

Casing, Liner, Screen
Material, Weight, Specification From To
Dia. (in.) Mfg. & Method of Assembly (ft.) (ft.)
6 std, steel new surface _____
18.97 lbs, ASTMA-53
Grade B .280 wall
Sawhill

a. (in.) screen type and material From To
Neat cement surface **276** **84**

8. Grout or Other Sealing Material
Method **halliburton** From To Sacks
Kind of Sealing Material (ft.) (ft.) Cement
Neat cement surface **276** **84**

9. Geology
Type, Caving/Noncaving, Color, Hardness, Etc. From To
(ft.) (ft.)
clay surface **5**
fine gravel & coarse sand **5** **63**
coarse -med. gravel **63** **126**
coarse sand and gravel **160** **160**
med. gravel and sand **160** **226**
limestone **226** **276**
limestone w/ shale layers **276** **325**
hard limestone **325** **335**

10. Static Water Level
ft. above ground level **133**
ft. below ground surface **133**
11. Pump Test
Pumping Level **265** ft. below surface
Pumping at **30** GPM for _____ hours
12. Well Is: ☒ Above Grade ☐ Below Grade
Developed? ☒ Yes ☐ No
Disinfected? ☒ Yes ☐ No
Capped? ☒ Yes ☐ No

13. Did you permanently seal all unused, noncomplying, or unsafe wells?
☐ Yes ☒ No If no, explain **still in use**
14. Signature of Point Driver or Registered Driller Date Signed _____
Signature of Drill Rig Operator Date Signed _____

Make additional comments on reverse side about geology, etc.

WELL CONSTRUCTOR

WELL CONSTRUCTION REPORT
Form 3300-77A Rev. 9-88

WISCONSIN UNIFORM WELL NUMBER REPORT
Name: Walter Gruber
Address: Box 78
City: Prairie du Sac State: WI Zip Code: 53578
County or Well Location: Sauk Date: 2/22/91

State of Wisconsin
Department of Natural Resources
Public Water Supply - Well
Form 3300-77A
Madison, WI 53707

47

1. Location (Please type or print name of well)
☒ Town ☐ City ☐ Village (If available)
of Prairie du Sac
Grid or Street Address or Road Name and Number (if available)
Hwy 78
Subdivision Name _____ Lot # _____ Block # _____

Well Construction (Please type or print name of well)
WATER WELLS INC Registration # 3
Address: 6400 Lake Road
City: Windsor State: WI Zip Code: 53598
2. Mark well location in correct 40-acre parcel of section.
N
W E
S

Gov't Lot # _____ or NE 1/4 of NW 1/4 of
Section 36 T 9 N: R 10 XX E ☐ W
3. Well Type ☐ New
☐ Replacement ☒ Reconstruction
of unique well # _____ constructed in 19 _____
Reason for new, replaced or reconstructed well?
to lower iron content

4. Well serves 1 # of homes and/or farm
(ex: barn, restaurant, church, school, industry, etc.)
High Capacity Well? ☐ Yes ☒ No
High Capacity Property? ☐ Yes ☒ No

5. Well Located on Highest Point of Property, Consistent with the General Layout and Surroundings? ☒ Yes ☐ No If no, explain on back side.
Well Located in Floodplain? ☐ Yes ☒ No
Distance in Feet From Well To Nearest:
1. Landfill 10
2. Building Overhang 220
3. Septic or Holding Tank 230
4. Sewage Absorption Unit 140
5. Nonconforming Pit 215
6. Buried Home Heating Oil Tank
7. Buried Petroleum Tank
8. Shoreline/Swimming Pool
9. Downspout/Yard Hydrant
10. Privy
11. Foundation Drain to Clearwater
12. Foundation Drain to Sewer
13. Building Drain
☒ Cast Iron or Plastic ☐ Other
14. Building Sewer ☒ Gravity ☐ Pressure
☒ Cast Iron or Plastic ☐ Other
15. Collector or Street Sewer
16. Clearwater Sump
17. Wastewater
18. Paved Animal Barn Pad
19. Animal Yard or Shelter
20. Silt - Type
21. Barn Gutter
22. Manure Pipe, ☐ Gravity
☐ Cast Iron or Plastic
23. Other Manure Storage
Other NR 112 Waste Expense
24.

6. Drillhole Dimensions
From To
Dia. (in.) (ft.) (ft.)
surface
6 335 515
5 515 534
Method of constructing upper enlarged drillhole only.
☒ 1. Rotary - Mud Circulation
☐ 2. Rotary - Air
☐ 3. Rotary - Foam
☐ 4. Reverse Rotary
☐ 5. Cable-tool Bit _____ in. dia.
☐ 6. Temp. Outer Casing _____ in. dia.
Removed? ☐ Yes ☐ No
If no, explain _____
☐ 7. Other _____

9. Geology
Type, Caving/Noncaving, Color, Hardness, Etc.
From To
(ft.) (ft.)
Limestone w/ shale layers 335 495
Sandstone 495 520
Sandstone changing to
quartzite 520 532
Quartzite 532 534

Casing, Liner, Screen
Material, Weight, Specification
Dia. (in.) Mfg. & Method of Assembly From To
(ft.) (ft.)
5" Std. steel PE new surface
14.62 lbs. 255 515

10. Static Water Level
_____ ft. above ground level
34 ft. below ground surface
11. Pump Test
Pumping Level 534 ft. below surface
Pumping at 150 GPM for 2 hours
12. Well Is:
☒ Above Grade
☐ Below Grade
Developed? ☒ Yes ☐ No
Disinfected? ☒ Yes ☐ No
Capped? ☒ Yes ☐ No

Screen type and material From To
(in.) (ft.) (ft.)
Sawhill
a. (in.) screen type and material From To
(ft.) (ft.)

Grout or Other Sealing Material
Method NA
Kind of Sealing Material From To
(ft.) (ft.) Sacks
Cement
5 X 6 K Packers- top surface
& bottom of liner

13. Did you permanently seal all unused, noncomplying, or unsafe wells?
☒ Yes ☐ No If no, explain to be abandoned
14. Signature of Point Driver or Registered Driller Richard Beckwith Date Signed 2/22/91
Signature of Drill Rig Operator Richard Beckwith Date Signed 2/22/91

See additional comments on reverse side about geology, etc.

WELL OWNER

WELL CONSTRUCTION REPORT
Form 3300-77A Rev. 9-88

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

DEC 18 1944

48

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner Wis Power & Light Co Driller Geo Reynolds

Street or RFD _____ Post Office Portage

Post Office Prarie Du Sac Date 12/16/44 Permit No. 5

LOCATION OF PREMISES

Sauk

County

Prarie Du Sac

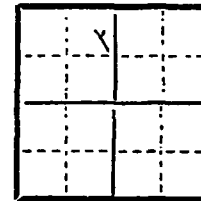
Town

At the Dam

Describe further by subdivision, plat, district, lake, lot.

block, nearest principal highway, etc., whichever apply.

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section.



✓ NW, SW, SE Sec. 25

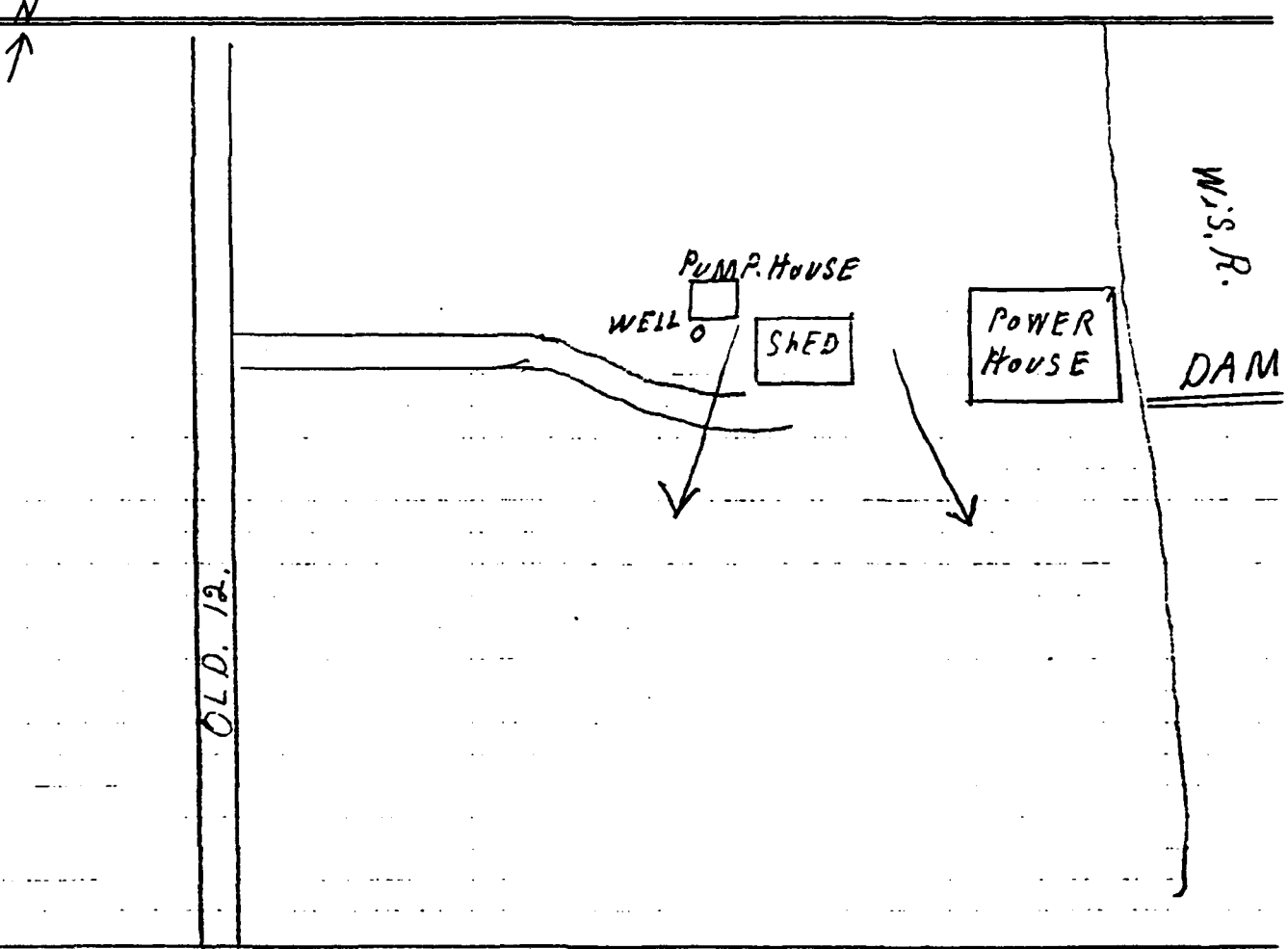
Sec. No. 36

Twp. North 12

Range 6 { E
W

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.



Additional copies of this form may be obtained in lots of 12 for 25c. Send remittance with order to State Board of Health, Well Construction Division, Madison, Wis.

WELL LOG and REPORT

For method of making report, refer to bulletin entitled "Well Construction Report," 7-5-39. Accuracy is essential.

In this column indicate the kind of casing, liner, shoe and other accessories used.

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

Record of
FINAL
Pumping test

Cased to 118 foot
with 6 inch Std
Casing with Forged
Steel Drive Shoe

Inches Diameter		Depth
2 3 4 5 6 8 10 12 14 16		
		25
		50
		75
		100
		150
		200
		400
		800
		1200

0 to 16 ft top soil

water at 16 foot
16 to 30 ft Sand & gravel
30 " 80 " River Sand
80 " 95 " Clay and
streaks of sand
95 " 110 Sand and
some Gravel
110 " 113 Red Clay
113 " 118 Gravel

Duration of test
Hours 4

Pumping rate
G.P.M. 15

Depth of pump in
well. Ft. 30

Standing water-level
(from surface)
Ft. 16

Water-level when
pumping Ft. 16

Water. End of test.
Clear Clear
Cloudy _____
Turbid _____

Was the well sterilized?
Yes Yes No _____

To which laboratory was sample
sent?
Madison
Date 11/7/44

Was the well sealed on comple-
tion?
Yes Yes No _____

How high did you leave the
casing-pipe above grade?
8 inches in Pit.

Well was completed
Date 9/30/44

Well Constructor
Geo. Reynolds

Draw the diagram to show the
full diameter and right section of

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

DEC 18 1944

49

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner Darwin John Ferry Driller Geo Reynolds
Street or RFD R.F.D Post Office Portage
Post Office Prairie Du Sac Date 12/16/44 Permit No. 5

LOCATION OF PREMISES

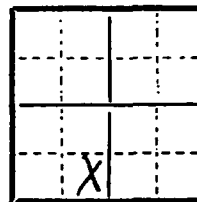
Sauk
County

Prairie Du Sac
Town

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section.

Describe further by subdivision, plat, district, lake, lot.

block, nearest principal highway, etc., whichever apply.



Sec. No. 25

Twp. North 10 ✓

Range 6 { E ✓
W

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.

N
↑

TOILET

DWELL

WELL

ROAD TO DAM

OLD U.S. 12

WELL LOG *and* REPORT

For method of making report, refer to bulletin entitled "Well Construction Report," 7-5-39. Accuracy is essential.

In this column indicate the kind of casing, liner, shoe and other accessories used.

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

Record of
FINAL
Pumping test

Cased to 178 foot
with 6 inch Std
Casing with Forged
Drive Shoe

Inches Diameter		Depth
2 3 4 5 6 8 10 12 14 16		
		25
		50
		75
		100
		150
		200
		400
		800
		1200

Draw the diagram to show the full diameter and right section of well only.

0 to 25 ft Top Soil
25 " 60 " Sand Gravel
and some Bolders
60 " 110 River Sand
110 " 140 Blue Clay
140 " 165 Sand
165 " 175 Sand & some
Gravel
175 " 178 Gravel
Water at 80 ft

Duration of test
Hours 2

Pumping rate
G.P.M. 6

Depth of pump in
well. Ft. 100

Standing water-level
(from surface)
Ft. 80

Water-level when
pumping Ft. 84

Water. End of test.
Clear Clear
Cloudy
Turbid

Was the well sterilised?
Yes Yes No

To which laboratory was sample
sent?
Madison
Date 10/16/44

Was the well sealed on comple-
tion?
Yes Yes No

How high did you leave the
casing-pipe above grade?
8 inches

Well was completed
Date 10/12/44

Well Constructor
Geo. Reynolds
Signature

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

JUL 20 1942
50

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner George. Worth Driller Geo. Reynolds
Street or RFD R.F.D. Post Office Portage Wis
Post Office Prarie Du Sac Wis Date 6/29/42 Permit No. 38

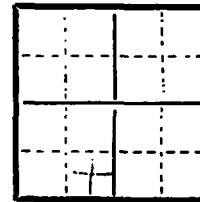
LOCATION OF PREMISES

Sauk Prarie du Sac
County Town

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section.

Describe further by subdivision, plat, district, lake, lot.

block, nearest principal highway, etc., whichever apply.



Sec. No. 25

Twp. No. 28 10 ✓

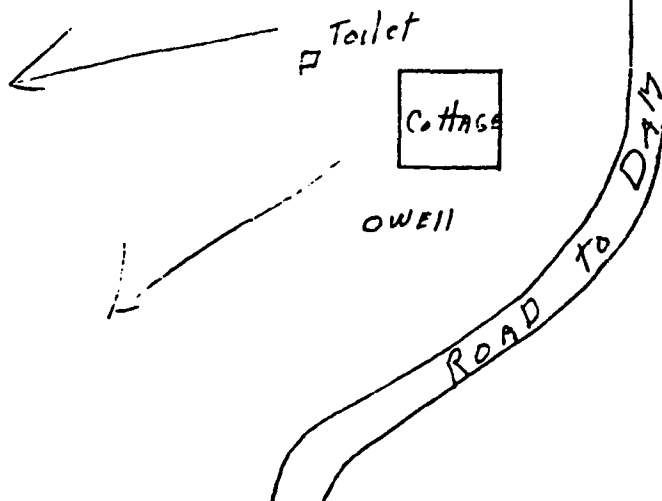
Range 6 E
W

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.

N. ?

Highway 12



WELL LOG and REPORT

For method of making report, refer to bulletin entitled "Well Construction Report." 7-5-39.

In this column indicate the kind of casing, liner, shoe and other accessories used.

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

Record of
FINAL
Pumping test

Cased with 6 inch
Std Water Well
Spec to 88 ft

6 inch Forged
Steel Drive Shoe

Inches Diameter																Depth
2	3	4	5	6	8	10	12	14	16	18						
																25
																50
																75
																100
																150
																200
																400
																800
																1200

0 to 26 ft Sand and
Clay Mixed
Water at 26 ft
80 ft
26 to Sand and a
little Gravel
80 to 86 ft Quite
Gravelly
86 to 88 Gravel

Duration of test
Hours 2

Pumping rate
G.P.M. 10

Depth of pump in
well. Ft. 60

Standing water-level
(from surface)
Ft. 26

Water-level when
pumping Ft. 26

Water. End of test.
Clear Clear
Cloudy
Turbid

Was the well sterilized?
Yes Yes No

To which laboratory was sample sent?
Madison
Date 3/20/42

Was the well sealed on completion?
Yes Yes No

How high did you leave the casing-pipe above grade?
8 inches

Well was completed
Date 3/3/42

Well Constructor
Geo Reynolds
Signature

Draw the diagram to show the right half only

FEB 12 1978 51

COUNTY <u>Lake</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Messina</u>	
LOCATION <u>NW 1/4 Sec 17 T10N R7E</u>		3. NAME <u>John Kassner</u>		<input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE	
OR - Grid & Street No. <u>Lot 30 Summer Oak Cove</u>		ADDRESS <u>119 Morona Ave</u>		POST OFFICE <u>Madison Wis 53703</u>	
AND - If available subdivision name, lot & block No.					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building Sanitary Bldg. Drain Sanitary Bldg. Sewer Floor Drain Connected To: Storm Bldg. Drain Storm Bldg. Sewer			
100 ft 110 ft 115 ft 125 ft		C.I. Other C.I. Other C.I. Sewer Other Sewer C.I. Other C.I. Other			
Street Sewer Other Sewers Foundation Drain Connected to Sewage Sump Clearwater Sump Clearwater Dr.		Sewage Sump C.I. Other Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit			
San. Storm C.I. Other Sewer Clearwater Dr. Sewage Sump C.I. Other Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit		Seepage Pit Seepage Bed Seepage Trench 125 ft			
Privy Pet Waste Pit: Nonconforming Existing Well Pump Tank Subsurface Pumphouse Nonconforming Existing Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit					
Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description)					
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		Topsoil Surface 3			
10 Surface 20		Sand & Gravel 3 75			
6 20 180		Sand 95 170			
7. CASING, LINER, CURBING AND SCREEN		Gravel & Sand 170 180			
Material, Weight, Specification & Method of Assembly From (ft.) To (ft.)					
6 New Standard Bldg Steel Surface 177					
7 1/2" 1945 # per ft					
ASTM A 53 Sanitary Metal Ltd					
3 ft Johnson Stainless Steel Screen					
Installed - 15 Slot 177 180					
8. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
Shill Cuttings Surface 20		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>Aug 25</u> 1977			
Yield Test: <u>12</u> Hrs. at <u>20</u> GPM		<input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>40</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>50</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Aug 25</u> 1977					
Our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>LaVerne Helsh</u> Registered Well Driller		Complete Mail Address <u>345 Park Ave Prairie du Sac</u>			

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

OCT 20 1977
WELL CONSTRUCTOR'S REPORT
Form 5300-15
Rev. 10-75

52

1. COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>MERRIMAC</u>	
2. LOCATION <u>NW 1/4</u> Section <u>17</u> Township <u>TION</u> Range <u>17E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ON <u>RICHARD J. WATERS</u>			
OR - Grid or Street No. Street Name		ADDRESS <u>806 10th AVE.</u>			
AND - If available subdivision name, lot & block No. <u>SUGAR OAK COVE LOT 35</u>		POST OFFICE <u>ROCHELLE, ILL. 61068</u>			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>65</u>		Sanitary Bldg. Drain C.I. Other	
		Sanitary Bldg. Sewer C.I. Other		Floor Drain Connected To: C.I. Sewer Other Sewer	
		Storm Bldg. Drain C.I. Other		Storm Bldg. S C.I. Other	
Street Sewer San. Storm C.I. Other		Foundation Drain Connected to: Sewer Sewage Sump Clearwater Dr. Clearwater Sump		Sewage Sump C.I. Other	
Other Sewers C.I. Other		Sewage Sump C.I. Other		Clearwater Sump Septic Tank Holding Tank	
Sewage Absorption Unit Seepage Pit Seepage Bed Seepage Trench <u>160</u>					
Privy Pet Waste Pit Pit: Nonconforming Existing Well Pump Tank		Subsurface Pumproom Nonconforming Existing		Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit	
Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)			
5. Well is intended to supply water for: <u>HOME</u>		9. FORMATIONS			
6. DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>CLAY</u> Surface <u>20'</u>			
<u>10"</u> Surface <u>20'</u> <u>6"</u> <u>20'</u> <u>196'</u>		<u>SAND</u> <u>20'</u> <u>120'</u>			
		<u>SAND & GRAVEL</u> <u>120'</u> <u>190'</u>			
		<u>GRAVEL</u> <u>190'</u> <u>196'</u>			
7. CASING, LINER, CURBING AND SCREEN Material, Weight, Specification & Method of Assembly		From (ft.) To (ft.)			
Dia. (in.) <u>6"</u> <u>NEW BLK STEEL</u> Surface <u>196'</u>					
<u>PIPE 19.45 LBS. PER FT. 175TM A-53</u>					
<u>THREADED & Coupled</u>					
8. GROUT OR OTHER SEALING MATERIAL Kind From (ft.) To (ft.)		10. TYPE OF DRILLING MACHINE USED			
<u>CLAY SLURRY</u> Surface <u>20'</u>		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>10/13</u> 19 <u>77</u>			
Yield Test: <u>24</u> Hrs. at <u>12</u> GPM		Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>50</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>58</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>MADISON</u> laboratory on <u>10/18</u> 19 <u>77</u>					

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature T. A. D. Complete Mail Address ...

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15

Rev. 5-8

SEP 29 1986

53

COUNTY Sauk CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name Merrimac

LOCATION NW Section 17 Township 7E Range 7E 3. NAME ☐ OWNER ☒ AGENT AT TIME OF DRILLING CHECK (✓) ONE
OR - Grid or Street No. Street or Road Name Prarie Plumburg (Huber) ADDRESS 8140 Phillips
AND - If available subdivision name, lot & block No. TION POST OFFICE Sauk City, WI ZIP CODE 53583

Distance in feet from well to nearest: (Record answer in appropriate block) Building 12 Sanitary Bldg. Drain C.I. Other Sanitary Bldg. Sewer C.I. Other Floor Drain Connected to: C.I. Sewer Other Sewer Storm Bldg. Drain C.I. Other Storm Bldg. Sewer C.I. Other

Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit Manure Hopper or Retention or Pneumatic Tank
San. Storm C.I. Other Sewer Sewage Sump C.I. Other Clearwater Sump Septic Tank Holding Tank Seepage Pit Seepage Bed Seepage Trench

Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Earthen Manure Basin

Temporary Manure Stack or Platform Water-tight Liquid Manure Tank or Basin Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls Other (Describe)

8. Well is intended to supply water for: Home 9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>sand + gravel</u>	<u>Surface</u>	<u>31</u>
<u>sand</u>	<u>31</u>	<u>145</u>
<u>sand + gravel</u>	<u>145</u>	<u>150</u>

10. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)
<u>6</u>	<u>std black pipe, .280 wall, welded joints, A-53 KHC</u>	<u>Surface</u>	<u>145</u>

10. TYPE OF DRILLING MACHINE USED

<input type="checkbox"/> Cable Tool	<input type="checkbox"/> Rotary-hammer w/drilling mud & air	<input type="checkbox"/> Jetting with
<input checked="" type="checkbox"/> Rotary-air w/drilling mud	<input type="checkbox"/> Rotary-hammer & air	<input type="checkbox"/> Air
<input type="checkbox"/> Rotary-w/drilling mud	<input type="checkbox"/> Reverse Rotary	<input type="checkbox"/> Water

11. MISCELLANEOUS DATA

Yield Test: 3 Hrs. at 91 GPM Well construction completed on 9/13 1986

Depth from surface to normal water level 40 Ft. Well is terminated 18 inches ☒ above final grade ☐ below

Depth of water level when pumping 63 Ft. Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on 9/15 1986

Signature

Business Name and Complete Mailing Address

Registered Well Driller

SAM'S ROTARY DRILLERS
ROUTE 2
RANDOLPH WISCONSIN 53055

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

FEB 28 1980
WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 12-7

54

1. COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Neerimaw</u>	
2. LOCATION <u>17</u> <u>1E</u> OR - Grid or Street No. <u>TION</u> Street Name		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>George Stans</u> ADDRESS <u>Rte 1</u> POST OFFICE <u>Prairie City, Del</u> <u>Larry Roche, Cont</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block) Building <u>8 ft</u> Sanitary Bldg. Drain <u>30 ft</u> Sanitary Bldg. Sewer <u>35 ft</u> Floor Drain Connected To: <u>55 ft</u> Storm Bldg. Drain <u>75 ft</u> Storm Bldg. Sewer			
San. Storm C.I. Other Sewer Sewage Sump Clearwater Dr. Clearwater Sump		Sewage Absorption Unit Seepage Pit Seepage Bed Seepage Trench	
Privy Pet Waste Pit: Nonconforming Existing Well Pump Tank		Subsurface Pumproom Nonconforming Existing Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit	
Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)	
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS Kind From (ft.) To (ft.) <u>Clay</u> Surface 10 <u>Sand & Gravel</u> 10 50 <u>Sand</u> 50 90 <u>Sand & Gravel</u> 90 105	
6. DRILLHOLE Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.) <u>10</u> Surface 20 <u>6</u> 20 100			
7. CASING, LINER, CURBING AND SCREEN Material, Weight, Specification & Method of Assembly From (ft.) To (ft.) <u>6" New Hard Beket Steel</u> Surface 97 <u>19.45" galv steel</u> 97 100 <u>ASTM A53</u> <u>Sanitation Unit</u> <u>3 ft Johnson Stainless Screen 15 Slot</u> <u>Installed at 97 100 ft</u>			
8. GROUT OR OTHER SEALING MATERIAL Kind From (ft.) To (ft.) <u>Drill Cutting</u> Surface 20		10. TYPE OF DRILLING MACHINE USED <input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with <input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air <input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water	
11. MISCELLANEOUS DATA Yield Test: <u>15</u> Hrs. at <u>25</u> GPM Depth from surface to normal water level <u>50</u> Ft. Depth of water level when pumping <u>50</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well construction completed on <u>Sept 27</u> 19 <u>79</u> Well is terminated <u>10</u> inches <input type="checkbox"/> above <input type="checkbox"/> below final grade Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Water sample sent to <u>Madison</u> laboratory on <u>Sept 28</u> 19 <u>79</u>			
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.			
Signature <u>L. V. Roche</u> Registered Well Driller		Complete Mail Address <u>245 Park Ave. Prairieville, Mo.</u>	

NOTE:

White Copy
Green Copy
Yellow Copy

Division's Copy
Driller's Copy
Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev. 2-7

JUN 29 1987

55

COUNTY <u>Sauk</u>		CHECK (X) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>MERRIMAC</u>	
2. LOCATION OR - Grid or Street No. <u>58304H</u> AND - If available subdivision name, lot & block No. <u>MERRIMAC WE</u>		Section <u>NE, NE 17</u> Township <u>10N</u> Range <u>7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (X) ONE <u>DR JOHN DEGIOUANNE</u> ADDRESS <u>75 PRAIRIE AV.</u> POST OFFICE <u>MERRIMAC WISCONSIN</u> ZIP CODE <u>53578</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>85</u>	Sanitary Bldg. Drain C.I. <input type="checkbox"/> Other <input type="checkbox"/>	Sanitary Bldg. Sewer C.I. <input type="checkbox"/> Other <input type="checkbox"/>	Floor Drain Connected To: C.I. Sewer <input type="checkbox"/> Other Sewer <input type="checkbox"/>
Street Sewer	Other Sewers	Foundation Drain Connected to:	Sewage Sump C.I. <input type="checkbox"/> Other <input type="checkbox"/>	Clearwater Sump	Septic Tank
San.	Storm	C.I. <input type="checkbox"/> Other <input type="checkbox"/>	Sewer	Clearwater Dr.	Clearwater Sump
Sewage Absorption Unit		Manure Hopper or Retention or Pneumatic Tank	Sewage Pit <u>150</u> Sewage Bed <u>150</u> Sewage Trench		
Privy	Pet Waste Pit	Pit: Nonconforming Existing <input type="checkbox"/> Well <input type="checkbox"/> Pump <input type="checkbox"/> Tank <input type="checkbox"/>	Subsurface Pumproom Nonconforming Existing <input type="checkbox"/>	Barn Gutter	Animal Barn Pen
Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin Concrete Floor Only <input type="checkbox"/> Concrete Floor and Partial Concrete Walls <input type="checkbox"/>
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10"	Surface	20'	6"	20'	204'
7. CASING, LINER, CURBING AND SCREEN		8. FORMATIONS			
Material, Weight, Specification		Kind From (ft.) To (ft.)			
Dia. (in.)	Mfg. & Method of Assembly	From (ft.)	To (ft.)		
6"	NEW BLK STEEL PIPE	Surface	204'	TOP SOIL Surface 8'	
1 1/2" 45 LBS. PER FT. TYPE		GRAVEL 8' 68'			
TEW-USPCO ASTM A7-120		SAND & GRAVEL 68' 196'			
HYDR-TESTION 1200 PSI		GRAVEL 196' 204'			
VALLEY STEEL					
3. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
Puddled Clay		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>JUNE 11</u> 19 <u>87</u>			
Yield Test: <u>24</u> Hrs. at <u>40</u> GPM		Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>60</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>62</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>MADISON</u>		laboratory on <u>JUNE 25</u> 19 <u>87</u>			
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of casing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Bryan K. Wickham</u>		Business Name and Complete Mailing Address <u>WICKHAM WATER SERVICES</u> <u>W10558 HWY J LOVE WI 53553</u>			
Registered Well Driller					

WELL CONSTRUCTOR'S REPORT FORM 3300-15

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

56

1. COUNTY <u>Sauk</u>		CHECK ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Theriot</u>	
2. LOCATION <u>SW 1/4</u> <u>174</u> <u>17</u> <u>10N</u> <u>7E</u>		3. OWNER AT TIME OF DRILLING <u>Ed Johnson</u>	
OR - Grid or street no. _____ Street name _____		ADDRESS <u>39 Lake Wisconsin Drive</u>	
AND - If available, subdivision name, lot & block no. <u>Summer Park Acres</u>		POST OFFICE <u>Theriot, Wis</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING SANITARY SEWER FLOOR DRAIN FOUNDATION DRAIN WASTE WATER DRAIN C. I. TILE C. I. TILE C. I. TILE C. I. TILE <u>12 ft</u> <u>40 ft</u> <u>35 ft</u> <u>none</u> <u>30 ft</u>	
CLEAR WATER DRAIN C. I. TILE <u>25 ft</u>	SEPTIC TANK <u>75 ft</u>	PRIVY <u>100 ft</u>	SEEPAGE PIT <u>100 ft</u>
ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL SINK HOLE
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)			

5. Well is intended to supply water for: Home

6. DRILLHOLE						9. FORMATIONS		
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
<u>10</u>	<u>Surface</u>	<u>20</u>				<u>Sand Gravel Clay</u>	<u>Surface</u>	<u>40</u>
<u>6</u>	<u>20</u>	<u>175</u>				<u>Sand</u>	<u>40</u>	<u>150</u>
7. CASING, LINER, CURBING, AND SCREEN								
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)					
<u>6"</u>	<u>New Standard Pipe</u>	<u>Surface</u>	<u>172</u>					
<u>19.45" galv. Z.C.</u>								
<u>ASTM A 53</u>								
<u>4 ft Johnson Stainless Screen</u>								
<u>172 - 175 ft</u>								

8. GROUT OR OTHER SEALING MATERIAL			10. TYPE OF DRILLING MACHINE USED		
Kind	From (ft.)	To (ft.)	<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Direct Rotary	<input type="checkbox"/> Reverse Rotary
<u>Drill Cutting</u>	<u>Surface</u>	<u>20</u>	<input type="checkbox"/> Rotary - air w/drilling mud	<input type="checkbox"/> Rotary - hammer with drilling mud & air	<input type="checkbox"/> Jetting with Air <input type="checkbox"/> Water

11. MISCELLANEOUS DATA		Well construction completed on <u>Sept 20</u> <u>1976</u>	
Yield test: <u>15</u> Hrs. at <u>25</u> GPM	Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final gra		
Depth from surface to normal water level <u>50</u> ft.	Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Depth to water level when pumping <u>50</u> ft.	Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Water sample sent to <u>Madison</u> laboratory on: <u>Sept 21</u> <u>1976</u>			

our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE <u>L. E. Schuch</u> Registered Well Driller	COMPLETE MAIL ADDRESS <u>245 Paul Ave Prairie du Sac</u>
--	---

Please do not write in space below

OLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
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FEB 12 1979

57

COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Merrimac</u>	
LOCATION <u>Sauk County</u> Section <u>17</u> Township <u>10N</u> Range <u>7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Harry Cickmann</u> ADDRESS <u>244 N. Williams Ave. Pella, Ia</u> POST OFFICE <u>(Sid Selpi, Contractor)</u>			
AND If available subdivision name, lot & block No. <u>Summer Cat Coves Lot 27</u>					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building Sanitary Bldg. Drain Sanitary Bldg. Sewer Floor Drain Connected To: Storm Bldg. Drain Storm Bldg. Sewer <u>10 ft</u> <u>25 ft</u> <u>31 ft</u> <u>47 ft</u>			
Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit		San. Storm C.I. Other Sewer Sewage Sump C.I. Other C.I. Sewer Other Sewer C.I. Other C.I. Other C.I. Other <u>75 ft</u> <u>100 ft</u>			
Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit					
Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description)					
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
5. DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>Clay Sand</u> Surface <u>35</u>			
<u>10</u> Surface <u>20</u>		<u>Sand 3</u> <u>35</u> <u>120</u>			
<u>20</u> <u>191</u>		<u>Sand & Gravel</u> <u>120</u> <u>175</u>			
		<u>Gravel</u> <u>175</u> <u>191</u>			
CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly		From (ft.) To (ft.)			
Dia. (in.)					
<u>6" New Stand Bldg. Steel</u> Surface <u>188</u>					
<u>9.45 ft J & C</u>					
<u>3 ft Johnson Stainless Screen</u>					
<u>Installed 15 Slot 188 191</u>					
3. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
<u>Drill Cuttings</u> Surface <u>20</u>		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>Aug 16</u> 19 <u>78</u>			
Yield Test: <u>1.5</u> Hrs. at <u>25</u> GPM		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>60</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>60</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Aug 21</u> 19 <u>78</u>					
opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of lining the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>L. Kerne Holbrook</u> Registered Well Driller		Complete Mail Address <u>245 Park Ave Prairie du Sac</u>			

1. COUNTY <u>Stark</u>		CHECK (1) ONE <input type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>MERRIMAC</u>									
2. LOCATION <u>SW 1/4 NW 17</u> <u>17</u> <u>10N</u> <u>7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT-AT-TIME-OF-DRILLING CHECK (1) ONE		Ed Johnson									
OR - Grid or Street No. <u>Street Name</u>		ADDRESS <u>39 Lake Wisconsin Drive</u>		POST OFFICE <u>Merrimac, Wis</u>									
AND - If available subdivision name, lot & block No. <u>Summer Oak Acres</u>													
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building		Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
		C.I.		Other		C.I.		Other		C.I.		Other	
<u>30 ft</u>		<u>4 1/2 ft</u>		<u>5 1/2 ft</u>		<u>65 ft</u>							
San. Storm C.I. Other		Foundation Drain Connected to:		Sewage Sump		Clearwater Sump		Septic Tank		Holding Tank		Sewage Absorption Unit	
		Sewer		Sewage Sump		C.I.		Other				Seepage Pit	
		Clearwater Dr.		Clearwater Sump								Seepage Bed	
												<u>110 ft</u>	
Privy		Pet Waste Pit		Pit: Nonconforming Existing		Subsurface Pumproom		Barn Gutter		Animal Barn Pen		Animal Yard	
		Well		Nonconforming Existing						Silo With Pit		Glass Lined Storage Facility	
		Pump										Silo w/o Pit	
		Tank										Earthen Silage Storage Trench Or	
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)			
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS		Kind		From (ft.)		To (ft.)					
6. DRILLHOLE		Dia. (in.)		From (ft.)		To (ft.)		Dia. (in.)		From (ft.)		To (ft.)	
<u>10</u>		Surface		<u>20</u>				<u>Clay</u>		Surface		<u>10</u>	
<u>6</u>		<u>20</u>		<u>179</u>				<u>Sand & Gravel Clay</u>		<u>10</u>		<u>80</u>	
								<u>Sand & Gravel</u>		<u>80</u>		<u>165</u>	
								<u>Gravel</u>		<u>165</u>		<u>179</u>	
7. CASING, LINER, CURBING AND SCREEN		Material, Weight, Specification & Method of Assembly		From (ft.)		To (ft.)							
<u>6" NewStar Beh Steel</u>		Surface		<u>176</u>									
<u>19.45" gal ft Jc</u>													
<u>ASTMA 53 Sumitomo Metal</u>													
<u>3 ft Johnson Stainless Screen</u>													
<u>Installed</u>				<u>176</u>		<u>179</u>							
8. GROUT OR OTHER SEALING MATERIAL		Kind		From (ft.)		To (ft.)							
<u>Drill Cuttings</u>		Surface		<u>20</u>									
10. TYPE OF DRILLING MACHINE USED		<input checked="" type="checkbox"/> Cable Tool		<input type="checkbox"/> Rotary-hammer w/drilling mud & air		<input type="checkbox"/> Jetting with							
		<input type="checkbox"/> Rotary-air w/drilling mud		<input type="checkbox"/> Rotary-hammer & air		<input type="checkbox"/> Air							
		<input type="checkbox"/> Rotary-w/drilling mud		<input type="checkbox"/> Reverse Rotary		<input type="checkbox"/> Water							
11. MISCELLANEOUS DATA		Yield Test: <u>15</u> Hrs. at <u>30</u> GPM		Well construction completed on <u>Nov 24</u> 19 <u>79</u>		<input checked="" type="checkbox"/> above final grade							
Depth from surface to normal water level <u>55</u> Ft.		Well is terminated <u>10</u> inches		<input type="checkbox"/> below final grade									
Depth of water level when pumping <u>60</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Stabilized <input type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No											
Water sample sent to <u>Madison</u> laboratory on <u>Nov 26</u> 19 <u>79</u>													
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.													
Signature <u>Lo Yune Heluk</u>		Complete Mail Address <u>245 Park Ave Prairie du Sac</u>											
Registered Well Driller													

WELL CONSTRUCTOR'S REPORT
FORM 3300-15STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

1. COUNTY <u>Sauk</u>		CHECK ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Merriman</u>	
2. LOCATION - <u>NE 1/4</u> Section <u>18</u> Township <u>10N</u> Range <u>7E</u>		3. OWNER AT TIME OF DRILLING <u>George Kufpatrick</u>	
OR - Grid or street no. _____ Street name _____		ADDRESS <u>Rte 1</u>	
A - If available subdivision name, lot & block no. _____		POST OFFICE <u>Merriman, Wis.</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING C. I. <u>15ft</u> SANITARY SEWER TILE C. I. <u>28ft</u> FLOOR DRAIN C. I. <u>4ft</u> FOUNDATION DRAIN SEWER CONNECTED <u>none</u> INDEPENDENT <u>30ft</u> WASTE WATER DRAIN C. I. <u>30ft</u> TILE	
CLEAR WATER DRAIN C. I. <u>6</u> TILE	SEPTIC TANK <u>75ft</u>	PRIVY	SEEPAGE PIT <u>100ft</u>
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)		ABSORPTION FIELD BARN SILO ABANDONED WELL SINK HOLE	
5. Well is intended to supply water for: <u>Home</u>			
6. DRILLHOLE		9. FORMATIONS	
dia. (in.)	From (ft.)	To (ft.)	Kind
10	Surface	10	Caving Sand Gravel Clay
6	10	100	Sand + Gravel
CASING, LINER, CURBING, AND SCREEN		Gravel	
dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	Newstand Bck	Surface	97
Steel 19.18" x 1/2"			
3 ft Johnson Stainless Screen		15 Slot-6"	
Installed from		97-100ft	
GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED	
Kind	From (ft.)	To (ft.)	<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Direct Rotary <input type="checkbox"/> Reverse Rotary
Shell Cuttings	Surface	10	<input type="checkbox"/> Rotary - air w/drilling mud <input type="checkbox"/> Rotary - hammer with drilling mud & air <input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water
MISCELLANEOUS DATA		Well construction completed on <u>Sept 11</u> 19 <u>74</u>	
Field test: <u>25</u>	Hrs. at <u>25</u> GPM	Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final grade	
Depth from surface to normal water level <u>64</u> ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth to water level when pumping <u>72</u> ft.		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water sample sent to <u>Madison</u>		Laboratory on: <u>Sept 13</u> 19 <u>74</u>	
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seal of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.		COMPLETE MAIL ADDRESS <u>745 Park Ave Prairie du Sac</u>	
SIGNATURE <u>L. Vene Shabach</u>		Registered Well Driller	
Please do not write in space below			
COLIFORM TEST RESULT		GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS	

NOTE:

White Copy
Green Copy
Yellow Copy

Division's Copy
Driller's Copy
Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 5300-15

60

1. COUNTY <u>Laurens</u>		CHECK (1) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Merriman</u>	
2. LOCATION <u>SW 1/4 NW 1/4</u>		Section <u>17</u> Township <u>10N</u> Range <u>7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (1) ON	
OR - Grid or Street No. <u>Sumner Oak Acres</u>		Street or Road Name		ADDRESS <u>RR.</u>	
AND - If available subdivision name, lot & block No.		POST OFFICE <u>Merriman, W.Va.</u>		ZIP CODE	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>8 ft</u>		Sanitary Bldg. Drain <u>30 ft</u>	
		Sanitary Bldg. Sewer <u>37 ft</u>		Floor Drain Connected To: <u>38 ft</u>	
		Storm Bldg. Drain <u>37 ft</u>		Storm Bldg. Sewer <u>38 ft</u>	
Street Sewer		Other Sewers		Foundation Drain Connected to:	
San. Storm C.I. Other		Sewer Clearwater Dr. Sewage Sump Clearwater Sump		Sewage Sump C.I. Other	
Clearwater Dr.		Sewage Sump		Clearwater Sump	
Septic Tank		Holding Tank		Sewage Absorption Unit	
Seepage Pit		Seepage Bed <u>75'</u>		Seepage Trench	
Manure Hopper or Retention or Pneumatic Tank		Manure Storage Basin		Concrete Floor Only	
Concrete Floor and Partial Concrete Walls		Other (Describe)			
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
		Kind		From (ft.) To (ft.)	
6. DRILLHOLE		Dia. (in.)		From (ft.) To (ft.)	
Dia. (in.)		From (ft.)		To (ft.)	
10 Surface 20		Sand Gravel & Clay		Surface 40	
6 20 235		Sand		40 120	
		Sand & Gravel		120 175	
		Sand Rock		175 235	
7. CASING, LINER, CURBING AND SCREEN		Material, Weight, Specification			
Dia. (in.)		Mfg. & Method of Assembly		From (ft.) To (ft.)	
6" Newland Bell Steel		Surface		216	
19.45 ft J.C.					
Sumner Metal ASTM A53					
8. GROUT OR OTHER SEALING MATERIAL		Kind		From (ft.) To (ft.)	
Kind		From (ft.)		To (ft.)	
Hill Cuttings		Surface		20	
10. TYPE OF DRILLING MACHINE USED		<input checked="" type="checkbox"/> Cable Tool		<input type="checkbox"/> Rotary-hammer w/drilling mud & air	
		<input type="checkbox"/> Rotary-air w/drilling mud		<input type="checkbox"/> Rotary-hammer & air	
		<input type="checkbox"/> Rotary-w/drilling mud		<input type="checkbox"/> Reverse Rotary	
		<input type="checkbox"/> Jetting with		<input type="checkbox"/> Air	
		<input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Yield Test: <u>15</u> Hrs. at <u>25</u> GPM		Well construction completed on <u>June 14</u> 19 <u>81</u>	
Depth from surface to normal water level <u>45</u> Ft.		Well is terminated <u>12</u> inches		<input checked="" type="checkbox"/> above final grade	
Depth of water level when pumping <u>55</u> Ft.		Well disinfected upon completion		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water sample sent to <u>Madison</u> laboratory on <u>June 16</u> 19 <u>81</u>					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>LeVene H. H. H.</u> Registered Well Driller		Business Name and Complete Mailing Address <u>245 Park Ave. Haverhill, Mass.</u>			

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WELL CONSTRUCTOR'S REPORT

APR 30 1975

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

el-6

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

COUNTY Sauk CHECK ONE ☒ Town ☐ Village ☐ City NAME MERRIMAC

2 LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)
156 1/2 ft. N. 1/4 Sec 17 T10N R7E Lot 34 Summer Oak Cove

3 OWNER AT TIME OF DRILLING
NED PHIPPS

4 OWNER'S COMPLETE MAIL ADDRESS
RT 1 MERRIMAC, WI.

5. Distance in feet from well to nearest:
(Record answer in appropriate block)

BUILDING	SANITARY	SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C. I.	TILE	C. I.	TILE	SEWER CONNECTED	INDEPENDENT
35					

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
C. I.	TILE							
	65			85				

6. OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

7. Well is intended to supply water for: HOME

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
8"	Surface	20'	4"	20'	213'

10. FORMATIONS

Kind	From (ft.)	To (ft.)
CLAY	Surface	65'
SAND	65'	200'
SAND ROCK	200'	213'

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
4"	BLACK STEEL	Surface	209
	11 LB PER FT		
	THREADED NEW		

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
PUDDLED CLAY	Surface	20'

11. MISCELLANEOUS DATA

1. Test: 48 Hrs. at 10 GPM

Depth from surface to normal water level 55' ft.

Depth to water level when pumping 65' ft.

Well construction completed on 4/17 1975

Well is terminated 12 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to MADISON laboratory on: 4/21 1975

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub surface pumprooms, access pits, etc., should be given on reverse side.

6. SIGNATURE Milton Hoyer COMPLETE MAIL ADDRESS RT 2, Toli, Wisc. 53555

Chapman Wickham Registered Well Driller

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS	GAS - 48 HRS	CONFIRMED	REMARKS

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev 12-76

APR 1 1982

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1. COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Merrimac (south part)</u>	
2. LOCATION <u>Section 5 (NW 1/4) 17</u> OR - Grid or Street No. <u>PERMAN. WELL # 85825</u> AND - If available subdivision name, lot & block No. <u>Lot 5 & 6</u>		3. NAME <input type="checkbox"/> OWNER <input checked="" type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Summer Oak Core Condo.</u> ADDRESS <u>RR. WELL # 1</u> POST OFFICE <u>Prairie du Sac</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block) <u>175 ft</u>		Building Sanitary Bldg. Drain Sanitary Bldg. Sewer Floor Drain Connected To: Storm Bldg. Drain Storm Bldg. Sewer C.I. Other C.I. Other C.I. Sewer Other Sewer C.I. Other C.I. Other	
Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit San. Storm C.I. Other Sewer Sewage Sump C.I. Other Clearwater Sump Septic Tank Holding Tank Seepage Pit Seepage Bed Seepage Trench Clearwater Dr. Clearwater Sump		Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit Well Pump Tank Nonconforming Existing	
Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description) <u>SAUK CO. MISC. #14</u>			
5. Well is intended to supply water for: <u>Condominium Units</u>		9. FORMATIONS Kind From (ft.) To (ft.) <u>Topsoil</u> Surface <u>4</u> <u>Sand & Gravel</u> <u>4</u> <u>125</u> <u>Sand</u> <u>125</u> <u>180</u> <u>Sand Rock</u> <u>185</u> <u>320</u>	
6. DRILLHOLE Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.) <u>10</u> Surface <u>60</u> <u>6</u> <u>60</u> <u>320</u>			
7. CASING, LINER, CURBING AND SCREEN Material, Weight, Specification & Method of Assembly From (ft.) To (ft.) <u>10</u> <u>A53 New Steel</u> Surface <u>60</u> <u>40.48" gal ft.</u> <u>6"</u> <u>New Steel B&B</u> <u>Surface</u> <u>210</u> <u>19.45" gal ft. gal.</u> <u>Summit Metal</u> <u>A53 NR 53</u>		APPROVAL DATE: JUNE 8, 1981 FILE LOCATION: PUBLIC WATER SUPPLY LOTM CC: TO STATE GEOLOGIST	
8. GROUT OR OTHER SEALING MATERIAL Kind From (ft.) To (ft.) <u>Cement</u> Surface <u>60</u> <u>6 gals water 94 lb cement ratio</u>		10. TYPE OF DRILLING MACHINE USED <input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with <input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air <input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water	
11. MISCELLANEOUS DATA Yield Test: <u>18</u> Hrs. at <u>60</u> GPM Depth from surface to normal water level <u>60</u> Ft. Depth of water level when pumping <u>85</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Water sample sent to <u>Sp. cap = 60 / 25 = 2.4 gpm / Madison</u> laboratory on <u>Sept 1</u> 19 <u>81</u>		Well construction completed on <u>July 16</u> 19 <u>81</u> Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.		Signature <u>L. Vernon Helber</u> cc: S.D. PRIV. W.S.-OTM SGS WELL Log Book Registered Well Driller Complete Mail Address <u>245 Park Ave Prairie du Sac, WI</u>	

COUNTY Sauk CHECK ONE ☒ Town ☐ Village ☐ City Deerfield

2. LOCATION Section or Gov't. Lot Section Township Range 3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK ONE
Lot 6 17 10N 7E Roger Heidenreich
OR - Grid or Street No. Street or Road Name ADDRESS Rte #1
AND - If available subdivision name lot & block No. POST OFFICE Prairie du Sac, Wis ZIP CODE 53591

4. Distance in feet from well Building Sanitary Bldg. Drain Sanitary Bldg. Sewer Floor Drain Connected To Storm Bldg. Drain Storm Bldg. Sewer
to nearest: (Record answer in appropriate block) 8 ft C.I. 32 ft Other 45 ft Other 35 ft C.I. Sewer Other Sewer C.I. Other C.I. Other
Street Sewer Other Sewers Foundation Drain Connected to Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit Manure Hopper or Retention or Pneumatic Tank
San. Storm C.I. Other Sewer Sewage Sump C.I. Other C.I. Other 60' Seepage Pit Seepage Bed 90' Seepage Trench

Privy Pet Waste Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Earthen Manure Basin
Pump Tank Nonconforming Existing

Temporary Manure Stack or Platform Watertight Liquid Manure Tank or Basin Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls Other (Describe)

5. Well is intended to supply water for: Home 9. FORMATIONS Kind From (ft.) To (ft.)
Sand Surface 125
Sand & Gravel 125 190
Sand & Rock 190 235

5. DRILLHOLE Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)
20 Surface 15
15 15 235

7. CASING, LINER, CURBING AND SCREEN Material, Weight, Specification Dia. (in.) Mfg. & Method of Assembly From (ft.) To (ft.)
6" New Steel Bechtel Surface 225
19.45" galv'd 1/4" P.
Sumitomo Metal
A53

8. GROUT OR OTHER SEALING MATERIAL Kind From (ft.) To (ft.)
Drill Cuttings Surface 15

10. TYPE OF DRILLING MACHINE USED ☒ Cable Tool ☐ Rotary-hammer w/drilling mud & air ☐ Jetting with ☐ Air ☐ Water
☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air ☐ Reverse Rotary
☐ Rotary-w/drilling mud

11. MISCELLANEOUS DATA Yield Test: 15 Hrs. at 25 GPM Well construction completed on Mar 23 19 82
Depth from surface to normal water level 57 Ft. Well is terminated 10 inches ☒ above final grade ☐ below
Depth of water level when pumping 65 Ft. Stabilized ☒ Yes ☐ No Well disinfected upon completion ☒ Yes ☐ No
Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on Mar 25 19 82

Signature

Business Name and Complete Mailing Address

FEB 6 1970

WELL CONSTRUCTOR'S REPORT

Well-6

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

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WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

1. COUNTY Sauk CHECK ONE ☒ Town ☐ Village ☐ City NAME Merrimac

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)
114 Sec-5 T10N R7E

3. OWNER AT TIME OF DRILLING Ed. Davides

4. OWNER'S COMPLETE MAIL ADDRESS Merrimac, Wis

5. Distance in feet from well to nearest:

BUILDING C.I.	SANITARY C.I.	SEWER TILE	FLOOR DRAIN C.I.	TILE	FOUNDATION DRAIN SEWER CONNECTED	INDEPENDENT	WASTE WATER DRAIN C.I.	TILE
6 ft		15 ft	20 ft		none		25	

CLEAR WATER DRAIN C.I. 20 TILE 75 ft SEPTIC TANK 100 ft PRIVY 100 ft SEEPAGE PIT 100 ft ABSORPTION FIELD 100 ft BARN 100 ft SILO 100 ft ABANDONED WELL 100 ft SINK HOLE 100 ft

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Home

7. DRILLHOLE

Dis. (in.)	From (ft.)	To (ft.)	Dis. (in.)	From (ft.)	To (ft.)
6	Surface	120			

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand & Gravel	Surface	10
Gravel	100	12

8. CASING, LINER, CURBING, AND SCREEN

Dis. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	New Stand B&R	Surface	11-6
	Steel 19.45 #/ft		
	5 ft Johnson Stairless		
	Screen - 15 Slot		

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
	Surface	

11. MISCELLANEOUS DATA

Yield test: 20 Hrs. at 15 GPM

Depth from surface to normal water level 88 ft.

Depth to water level when pumping 88 ft.

Water sample sent to Madison laboratory on: Oct 17, 1969

Well construction completed on Oct 16 1969

Well is terminated 12 inches ☒ above final grade ☐ below

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to new wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE LeVerne M. Hubert Registered Well Driller COMPLETE MAIL ADDRESS 245 Park Ave Prairie du Lac

Please do not write in space below

COLIFORM TEST RESULT GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS

State of Wisconsin
Department of Natural Resources
Box 450
Madison, Wisconsin 53701

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

DEC 14 1977
WELL CONSTRUCTOR'S F
Form 3300-15
Rev. 10-75

65

COUNTY Shank CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name Therese

2. LOCATION NE 1/4 NE 1/4 Section 5 Township 10 N Range 7 E 3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE
OR - Grid or Street No. Street Name ADDRESS Nesbitt Ravong
AND - If available subdivision name, lot & block No. POST OFFICE 20210 Chase Ave
Lombard, Ill.

Distance in feet from well to nearest: (Record answer in appropriate block)		Building	Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer	
			C.I.	Other	C.I.	Other	C.I. Sewer	Other Sewer	C.I.	Other	C.I.	Other
		<u>10 ft</u>	<u>30 ft</u>		<u>40 ft</u>		<u>25 ft</u>					

Street Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Pump		Clearwater Sump		Septic Tank		Holding Tank		Sewage Absorption Unit	
an.	Storm	C.I.	Other	Sewer	Clearwater Dr.	Sewage Sump	C.I.	Other							
															<u>75 ft</u>

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit

Temporary Manure Rack	Watertight Liquid Manure Tank	Solid Manure Storage Structure	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Other (Give Description)

5. Well is intended to supply water for: Home

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Sand & Gravel</u>	<u>Surface</u>	<u>60</u>
<u>Sand</u>	<u>60</u>	<u>150</u>
<u>Sand & Gravel</u>	<u>150</u>	<u>230</u>
<u>Gravel</u>	<u>230</u>	<u>241</u>

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>8</u>	<u>Surface</u>	<u>20</u>			
<u>20</u>	<u>20</u>	<u>241</u>			

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification & Method of Assembly	From (ft.)	To (ft.)
<u>6"</u>	<u>Newstand Behr</u>	<u>Surface</u>	<u>241</u>
<u>19.45"</u>	<u>galv steel</u>		
<u>ASTMA 53</u>	<u>summitone</u>		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Drill Cuttings</u>	<u>Surface</u>	<u>20</u>

10. TYPE OF DRILLING MACHINE USED

<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Rotary-hammer w/drilling mud & air	<input type="checkbox"/> Jetting with
<input type="checkbox"/> Rotary-air w/drilling mud	<input type="checkbox"/> Rotary-hammer & air	<input type="checkbox"/> Air
<input type="checkbox"/> Rotary-w/drilling mud	<input type="checkbox"/> Reverse Rotary	<input type="checkbox"/> Water

1. MISCELLANEOUS DATA

Yield Test: 15 Hrs. at 25 GPM

Depth from surface to normal water level 80 Ft.

Depth of water level when pumping 80 Ft. Stabilized ☒ Yes ☐ No

Well construction completed on May 14 19 77

Well is terminated 10 inches ☒ above final grade ☐ below

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on May 16 19 77

Opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Complete Mail Address

NOTE:

White Copy
Green Copy
Yellow Copy

Division's Copy
Driller's Copy
Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15

66

1. COUNTY <u>Lauke</u>		CHECK (X) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Thermon</u>	
2. LOCATION Section or Gov't. Lot <u>8</u> Township Range <u>10N 7E</u> OR - Grid or Street No. Street or Road Name AND - If available subdivision name, lot & block No.		3. NAME <u>Armed Weyland</u> ADDRESS <u>A.R.</u> POST OFFICE <u>Thermon, Wis</u> ZIP CODE	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building Sanitary Bldg. Drain Sanitary Bldg. Sewer Floor Drain Connected To: Storm Bldg. Drain Storm Bldg. Sewer	
75 ft 90 ft 110 ft		C.I. Other C.I. Other C.I. Sewer Other Sewer C.I. Other C.I. Other	
Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Holding Tank Sewage Absorption Unit Manure Hopper or Retention or Pneumatic Tank		San. Storm C.I. Other Sewer Clearwater Dr. Sewage Sump C.I. Other Clearwater Sump 100' Seepage Pit Seepage Bed 125' Seepage Trench	
Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Earthen Manure Basin		Well Pump Tank Nonconforming Existing	
Temporary Manure Stack or Platform Watertight Liquid Manure Tank or Basin Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls Other (Describe)			
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS	
6. DRILLHOLE		Kind From (ft.) To (ft.)	
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>Clay & Sand</u> Surface 10 ft	
10 Surface 15		<u>Sand & Gravel</u> 10 95	
6 15 184		<u>Sand</u> 95 170	
7. CASING, LINER, CURBING AND SCREEN		<u>Gravel</u> 170 184	
Material, Weight, Specification			
Dia. (in.) Mfg. & Method of Assembly From (ft.) To (ft.)			
6" New Stone Bel Steel 19.45" x 1/2" A.C. Surface 181			
5" ID 4.95" ASTM A53			
3" 1/2" 4.95" ASTM A53			
Installed 15 ft 181 184			
8. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED	
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with	
<u>Drill Cuttings</u> Surface 15		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air	
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water	
11. MISCELLANEOUS DATA		Well construction completed on <u>Dec 19</u> 19 <u>80</u>	
Yield Test: <u>17</u> Hrs. at <u>20</u> GPM		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below	
Depth from surface to normal water level <u>35</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth of water level when pumping <u>35</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water sample sent to <u>Madison</u> laboratory on <u>Dec 22</u> 19 <u>80</u>			

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature La Verne Helsholtz
Registered Well Driller

Business Name and Complete Mailing Address
245 Park Ave Prairie Du Sac

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COUNTY Sauk CHECK (ONE) ☐ Town ☐ Village ☐ City Name Merrimac

2. LOCATION Section or Gov't. Lot NW Section 8 Township 10N Range 7E 3. NAME ☐ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (ONE) ABC Builders

OR -- Grid or Street No. Street or Road Name Hwy 78 ADDRESS 6213 Monona Dr.

AND -- If available subdivision name, lot & block No. POST OFFICE Monona, Wisc ZIP CODE 53716

4. Distance in feet from well to nearest: (Record answer in appropriate block) Building 15 Sanitary Bldg. Drain C.I. Other Sanitary Bldg. Sewer C.I. Other Floor Drain Connected To: C.I. Sewer Other Sewer Storm Bldg. Drain C.I. Other Storm Bldg. Sewer C.I. Other

Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit Manure Hopper or Retention or Pneumatic Tank

San. Storm C.I. Other Sewer Clearwater Dr. Clearwater Sump Sewage Sump C.I. Other Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit Manure Hopper or Retention or Pneumatic Tank

Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Earthen Manure Basin

Temporary Manure Stack or Platform Watertight Liquid Manure Tank or Basin Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls Other (Describe)

5. Well is intended to supply water for: House 9. FORMATIONS

Dia. (in.)		From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)
8	Surface	105		Clay	Surface	10
8	Surface	105		sand & gravel	10	35
8	Surface	111		sand	35	76
6	Std Black Pipe, .280 Wall, Weld	Surface	105	gravel & clay	76	90
6	JTS, A-53	Surface	105	gravel	90	111
6"	S.S. screen	105	111			

7. CASING, LINER, CURBING AND SCREEN Material, Weight, Specification Mfg. & Method of Assembly

8. GROUT OR OTHER SEALING MATERIAL Kind From (ft.) To (ft.)

mud cuttings Surface 111

10. TYPE OF DRILLING MACHINE USED

☐ Cable Tool ☒ Rotary-hammer w/drilling mud & air ☐ Jetting with ☐ Air ☐ Water

☐ Rotary-air w/drilling mud ☐ Rotary-hammer & air

☐ Rotary-w/drilling mud ☐ Reverse Rotary

11. MISCELLANEOUS DATA

Yield Test: 2 Hrs. at 15 GPM Well is terminated 12 inches ☒ above final grade ☐ below

Depth from surface to normal water level 45 Ft. Well disinfected upon completion ☒ Yes ☐ No

Depth of water level when pumping 84 Ft. Stabilized ☒ Yes ☐ No Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on Sept 11 19 81

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Business Name and Complete Mailing Address

SAM'S ROTARY DRILLERS
ROUTE 2
RANDOLPH, WISCONSIN 53958

NOTE:

White Copy
Green Copy
Yellow Copy

Division's Copy
Driller's Copy
Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15

Rev 12-76

FEB 12 1978

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1. COUNTY <u>Lauke</u>		CHECK (1) ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Neurimac</u>											
2. LOCATION <u>Swilly, Wis</u> Section <u>8</u> Township <u>10N</u> Range <u>7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (1) ONE <u>Allen Furbacken</u>													
OR - Grid or Street No. <u>4</u> Street Name		ADDRESS <u>160 Grove St.</u>													
AND - If available subdivision name, lot & block No.		POST OFFICE <u>Neurimac, Wis</u>													
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building		Sanitary Bldg. Drain		Sanitary Bldg. Sewer		Floor Drain Connected To:		Storm Bldg. Drain		Storm Bldg. Sewer			
		C.I. Other		C.I. Other		C.I. Other		C.I. Other		C.I. Other		C.I. Other			
<u>10 ft</u>		<u>25 ft</u>		<u>30 ft</u>		<u>40 ft</u>									
Street Sewer		Other Sewers		Foundation Drain Connected to:		Sewage Pump		Clearwater Sump		Sewage Absorption Unit					
San. Storm C.I. Other		Sewer		Sewage Sump		C.I. Other		Silo With Pit		Glass Lined Storage Facility		Silo w/o Pit			
		Clearwater Dr.		Clearwater Sump				70 ft		Seepage Pit		Seepage Bed			
										Seepage Trench		90 ft			
Privy		Pet Waste Pit		Pit: Nonconforming Existing		Subsurface Pumproom		Barn Gutter		Animal Barn Pen		Animal Yard			
				Well		Nonconforming Existing									
				Pump											
				Tank											
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)					
5. Well is intended to supply water for: <u>Home</u>															
9. FORMATIONS															
										Kind		From (ft.)		To (ft.)	
										<u>Sand & Clay</u>		Surface		18	
										<u>Sand</u>		18		130	
										<u>Sand & Gravel</u>		130		168	
										<u>Gravel</u>		168		176	
6. DRILLHOLE															
Dia. (in.)		From (ft.)		To (ft.)		Dia. (in.)		From (ft.)		To (ft.)					
<u>10</u>		Surface		<u>20</u>											
<u>6</u>		<u>20</u>		<u>176</u>											
7. CASING, LINER, CURBING AND SCREEN															
Dia. (in.)		Material, Weight, Specification & Method of Assembly		From (ft.)		To (ft.)									
<u>6"</u>		<u>New York Pipe Steel</u>		Surface		<u>173</u>									
<u>19.45</u>		<u>5 ft J.C.</u>													
<u>4.5</u>		<u>53</u>		<u>Scimitar</u>		<u>Drills</u>									
<u>3 ft</u>		<u>Johnson</u>		<u>Stainless</u>		<u>Screen</u>									
<u>Installed</u>		<u>15 ft</u>		<u>173</u>		<u>176</u>									
8. GROUT OR OTHER SEALING MATERIAL															
Kind		From (ft.)		To (ft.)											
<u>Drill Cuttings</u>		Surface		<u>20</u>											
10. TYPE OF DRILLING MACHINE USED															
<input checked="" type="checkbox"/> Cable Tool		<input type="checkbox"/> Rotary-air w/drilling mud		<input type="checkbox"/> Rotary-hammer w/drilling mud & air		<input type="checkbox"/> Jetting with									
<input type="checkbox"/> Rotary-w/drilling mud		<input type="checkbox"/> Rotary-hammer & air		<input type="checkbox"/> Reverse Rotary		<input type="checkbox"/> Air									
<input type="checkbox"/> Rotary-w/drilling mud		<input type="checkbox"/> Reverse Rotary				<input type="checkbox"/> Water									
Well construction completed on <u>Aug 23</u> 19 <u>78</u>															
11. MISCELLANEOUS DATA															
Yield Test: <u>18</u>		Hrs. at <u>25</u>		GPM		Well is terminated <u>10</u> inches		<input checked="" type="checkbox"/> above final grade		<input type="checkbox"/> below					
Depth from surface to normal water level <u>50</u>		Ft.		Well disinfected upon completion		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No									
Depth of water level when pumping <u>60</u>		Ft.		Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Water sample sent to <u>Madison</u>		laboratory on <u>Aug 24</u>		19 <u>78</u>											
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.															
Signature <u>L. H. Helbach</u>		Registered Well Driller		Complete Mail Address <u>245 Park Ave Princeton, N.J.</u>											

FEB 1 1984

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COUNTY		CHECK (✓) ONE:		Name	
SAUK		<input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		MERRIMAN	
2. LOCATION		3. NAME		4. DISTANCE IN FEET FROM WELL	
SE 1/4 NW 1/4 8 10N 7E		FRANCIS BREY		4'	
OR - Grid or Street No. Street or Road Name		ADDRESS		Sanitary Bldg. Drain	
		WEIGAND'S BAY		Sanitary Bldg. Sewer	
AND - If available subdivision name, lot & block No.		POST OFFICE		Storm Bldg. Drain	
WEIGANDS POINT SUB.		ZIP CODE		Storm Bldg. Sewer	
4. Distance in feet from well to nearest:		5. Well is intended to supply water for:		6. DRILLHOLE	
(Record answer in appropriate block)		HOME		DIA. (in.) FROM (ft.) TO (ft.) DIA. (in.) FROM (ft.) TO (ft.)	
San. Storm C.I. Other Sewer Sewage Sump Clearwater Dr. Clearwater Sump				6 Surface 85	
Foundation Drain Connected to: Sewage Sump Clearwater Sump					
Septic Tank Holding Tank Sewage Absorption Unit Manure Hopper or Retention or Pneumatic Tank					
Seepage Pit Seepage Bed Seepage Trench					
Privy Pet Waste Pit: Nonconforming Existing Well Pump					
Subsurface Pumproom Nonconforming Existing					
Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Earthen Manure Basin					
Temporary Manure Stack or Platform Watertight Liquid Manure Tank or Basin Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type)					
Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls					
Other (Describe)					
7. FORMATIONS					
Kind From (ft.) To (ft.)					
COARSE SAND + GRAVEL Surface 85					
8. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification					
Dia. (in.) Mfg. & Method of Assembly From (ft.) To (ft.)					
6 P.E. NEW PRE Surface 82					
ASTM A-120					
18.92 105 1200psi					
VALLEY STEEL PIPE					
6 JOHNSON SCREEN 82 85					
9. GROUT OR OTHER SEALING MATERIAL					
Kind From (ft.) To (ft.)					
NONE Surface -					
10. TYPE OF DRILLING MACHINE USED					
<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with					
<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air					
<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water					
11. MISCELLANEOUS DATA					
Yield Test: 48 Hrs. at 20 GPM					
Depth from surface to normal water level 20 Ft.					
Depth of water level when pumping 35 Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Well construction completed on 7-31 1983					
Well is terminated 12 inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below					
Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Water sample sent to S.L.H. laboratory on 8-8-1983					
Opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of lining the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature					
Terry L. Marshall					
Registered Well Driller					
Business Name and Complete Mailing Address					
Wm. Paul & Son, Inc.					
Kin. P.O. Box 53965					

Division's Copy
Driller's Copy
Owner's Copy

Signature

COUNTY <u>Sauk</u>		CHECK (1) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Missouri</u>	
2. LOCATION <u>SE 1/4 NE 1/4</u>		Section <u>8</u> Township <u>7N</u> Range <u>7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (1) ONE	
OR - Grid or Street No. <u>Street or Road Name</u>		ADDRESS <u>F.H. Humbert</u>		POST OFFICE <u>RR</u> ZIP CODE <u>53501</u>	
AND - If available subdivision name, lot & block No.		POST OFFICE <u>RR</u>		ZIP CODE <u>53501</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>15 ft</u>		Sanitary Bldg. Drain <u>45 ft</u>	
		Sanitary Bldg. Sewer <u>50 ft</u>		Floor Drain Connected To: <u>40 ft</u>	
		San. Storm C.I. Other		Storm Bldg. Drain C.I. Other	
		Sewer Sewage Sump Clearwater Dr. Clearwater Sump		Sewage Absorption Unit Seepage Pit Seepage Bed <u>100'</u> Seepage Trench	
		Privy Pet Waste Pit: Nonconforming Existing Well Pump Tank		Manure Hopper or Retention or Pneumatic Tank	
		Subsurface Pumproom Nonconforming Existing		Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit Earthen Manure Basin	
		Temporary Manure Stack or Platform Watertight Liquid Manure Tank or Basin Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type)		Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls Other (Describe)	
Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
5. DRILLHOLE					
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		Kind From (ft.) To (ft.)			
<u>10</u> Surface <u>20</u>		<u>Sand & Clay</u> Surface <u>15</u>			
<u>20</u> <u>245</u>		<u>Sand & Gravel</u> <u>15</u> <u>125</u>			
		<u>Sand</u> <u>125</u> <u>175</u>			
		<u>Sand Rock</u> <u>175</u> <u>245</u>			
6. CASING, LINER, CURBING AND SCREEN					
Dia. (in.) Material, Weight, Specification Mfg. & Method of Assembly From (ft.) To (ft.)					
<u>6"</u> <u>Newtong & Bergstrom</u> Surface <u>240</u>					
<u>19.45" per ft. 3/4"</u> <u>Sumitomo Metal</u> <u>A53</u>					
7. GROUT OR OTHER SEALING MATERIAL					
Kind From (ft.) To (ft.)		10. TYPE OF DRILLING MACHINE USED			
<u>Drill Cuttings</u> Surface <u>20</u>		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>Apr 27</u> 1982			
Yield Test: <u>18</u> Hrs. at <u>25</u> GPM		Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>45</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>60</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Apr 28</u> 1982					
opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of lining the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>L. Verne Hochstetler</u> Registered Well Driller		Business Name and Complete Mailing Address <u>245 Park Ave Prairie du Sac</u>			

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

72
JAN 8 1944

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner Badger Ordnance Works Tract No 25-1 Driller Geo Reynolds
Street or RFD Tract No 25-1 Post Office Portage
Post Office Baraboo Wis Date 1/6/44 Permit No. _____

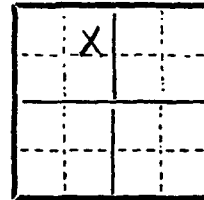
LOCATION OF PREMISES

Sauk Merrimac
County Town

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section.

Describe further by subdivision, plat, district, lake, lot.

block, nearest principal highway, etc., whichever apply.



Sec. No. 8

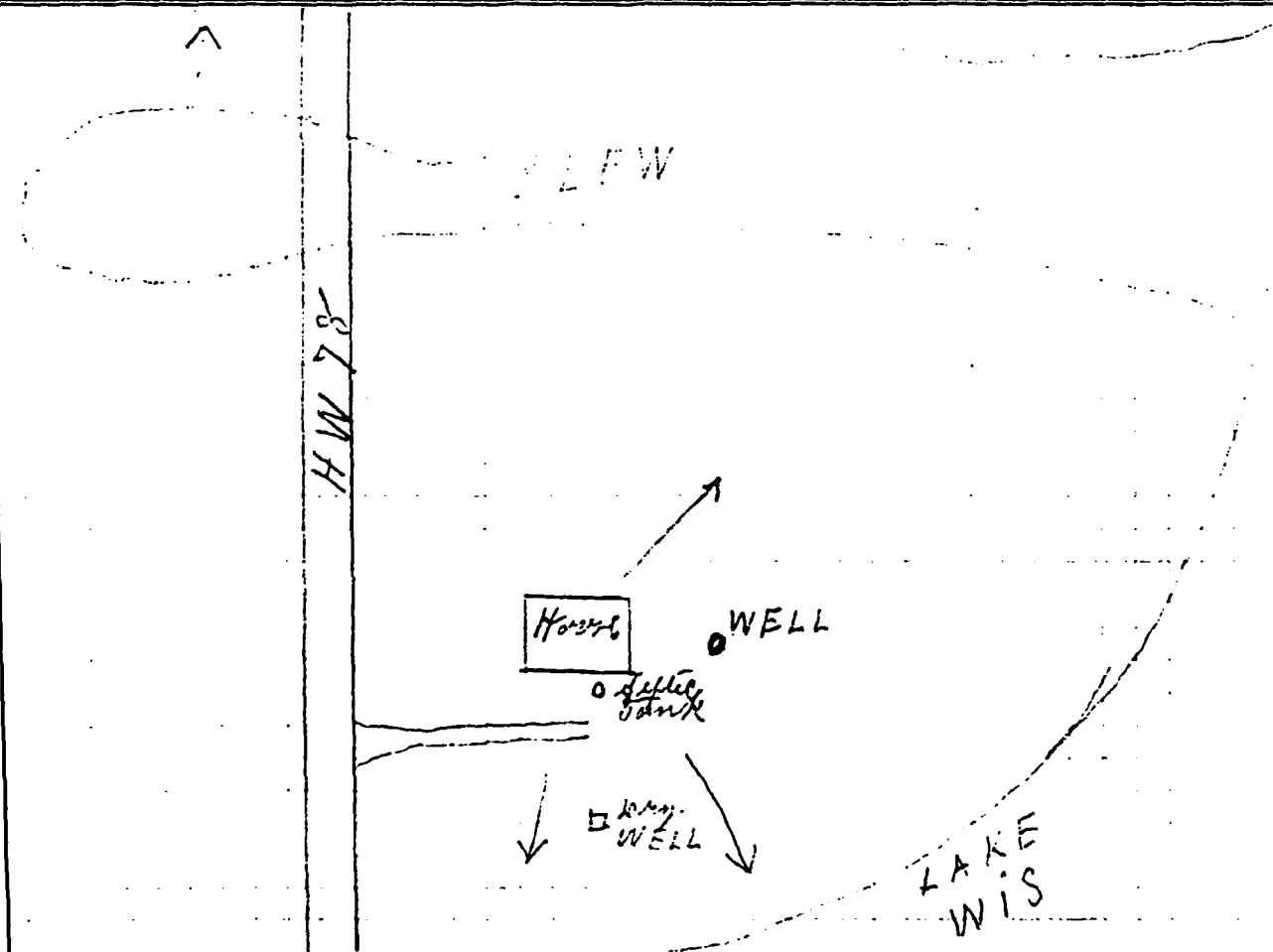
Twp. North 10-11

Range 6 7 E
W

✓ TION R 71

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.



WELL LOG and REPORT

For method of making report, refer to bulletin entitled "Well Construction Report," 7-5-39. Accuracy is essential.

In this column indicate the kind of casing, liner, shoe and other accessories used.

WELL DIAGRAM
Use a red line to show casing or liner pipe. Use black for drill or borehole.

In this column state the kind of formations penetrated, their thickness in feet and if water bearing.

Record of
FINAL
Pumping test

Cased to 171 ft
with 6 inch Well
Drillers Spec
with Forged Steel
Drive Shoe

Inches Diameter		Depth
2 3 4 5 6 8 10 12 14 16		
		25
		50
		75
		100
		150
		200
		400
		800
		1200

Draw the diagram to show the full diameter and right section of well only.

0 to 20 ft Sand & Gravel
with a little
Clay
20 to 80 ft Savey Sand
Gravel Mixed & a little
Clay
Water at 50 ft
80 to 165 ft River
Sand with a little
fine Gravel
165 to 171 Gravel

Duration of test
Hours 2

Pumping rate
G.P.M. 15

Depth of pump in
Well. Ft. 93

Standing water-level
(from surface)
Ft. 51

Water-level when
pumping Ft. 66

Water. End of test.
Clear Clear
Cloudy
Turbid

Was the well sterilized?
Yes Yes No

To which laboratory was sample
sent?
Madison
Date 12/7/43

Was the well sealed on comple-
tion?
Yes Yes No

How high did you leave the
casing-pipe above grade?
10 inches

Well was completed
Date 12/7/43

Well Constructor
Geo. Reynolds
Signature

WELL CONSTRUCTION REPORT
WISCONSIN STATE BOARD OF HEALTH
WELL CONSTRUCTION DIVISION

73
JAN 1944

Note: Section 31 of the Wisconsin Well Construction Code, having the force and effect of law, provides that within thirty days after completion of every well the driller shall submit a report covering all essential details of construction to the State Board of Health on a form provided by the Board.

Owner Badger Ordnance Works Driller Geo Reynolds
Street or RFD Tract No 8-1 Post Office Portage Wis
Post Office Baraboo Wis Date 1/6/44 Permit No. _____

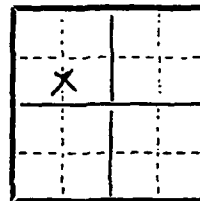
LOCATION OF PREMISES

Sauk Merrimac
County Town

The square below represents a section of land divided into 40 acre tracts. Mark the position of the premises in the section.

Describe further by subdivision, plat, district, lake, lot.

block, nearest principal highway, etc., whichever apply.



Sec. No. 5

Twp. North 40-11

Range 6 7 E
W

TION R7E

DIAGRAM OF PREMISES

See Well Construction Report bulletin. In making the diagram in the space below consider 10 ft. as the distance between lines. Be sure to indicate NORTH.

N
↑

BARN

YARD

WELL

HOUSE

TOILET

Town Road

H.W. 78

WELL LOG and REPORT

For method of making report, refer to bulletin entitled "Well Construction Report." 7-5-39. Accuracy is essential.

<p>Column indicate the kind of casing, liner, shoe and other accessories used.</p>	<p>WELL DIAGRAM Use a red line to show casing or liner pipe. Use black for drill or borehole.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center;">Inches</th> <th style="text-align: center;">Diameter</th> <th rowspan="2" style="text-align: center;">Depth</th> </tr> <tr> <th style="text-align: center;">2 3 4 5 6 8 10 12 14 16</th> <th style="text-align: center;">S 10 12 14 16</th> </tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td>25</td></tr> <tr><td> </td><td> </td><td>50</td></tr> <tr><td> </td><td> </td><td>75</td></tr> <tr><td> </td><td> </td><td>100</td></tr> <tr><td> </td><td> </td><td>150</td></tr> <tr><td> </td><td> </td><td>200</td></tr> <tr><td> </td><td> </td><td>400</td></tr> <tr><td> </td><td> </td><td>800</td></tr> <tr><td> </td><td> </td><td>1200</td></tr> </table>	Inches	Diameter	Depth	2 3 4 5 6 8 10 12 14 16	S 10 12 14 16						25			50			75			100			150			200			400			800			1200	<p>In this column state the kind of formations penetrated, their thickness in feet and if water bearing.</p>	<p>Record of FINAL Pumping test</p>
Inches	Diameter	Depth																																				
2 3 4 5 6 8 10 12 14 16	S 10 12 14 16																																					
		25																																				
		50																																				
		75																																				
		100																																				
		150																																				
		200																																				
		400																																				
		800																																				
		1200																																				
<p>Cased to 187 ft with 6 inch Well Drillers Spec with a Forged Steel Drive Shoe</p>		<p>0 to 5 ft Top Soil 5 to 20 ft Sand 20 to 30 " Sand & Gravel 30 " 35 " Savey Sand and Stone 35 " 70 " Sand Hardpan sone Stone Water at 78 ft 70 to 100 Sand & Gravel Some Bolders 100 to 175 River Sand a little Gravel 175 to 185 Sand 185 to 187 Gravel</p>	<p>Duration of test Hours <u>2</u></p> <p>Pumping rate M <u>15</u></p> <p>Depth of pump in well. Ft. <u>120</u></p> <p>Standing water-level (from surface) Ft. <u>78</u></p> <p>Water-level when pumping Ft. <u>86</u></p> <p>Water. End of test. Clear <u>Clear</u> Cloudy <u> </u> Turbid <u> </u></p> <p>Was the well sterilised? Yes <u>Yes</u> No <u> </u></p> <p>To which laboratory was sample sent? <u>Madison</u> Date <u>12/15/43</u></p> <p>Was the well sealed on comple- tion? Yes <u>Yes</u> No <u> </u></p> <p>How high did you leave the casing-pipe above grade? <u>8</u> inches</p> <p>Well was completed Date <u>12/15/43</u></p> <p>Well Constructor <u>Geo Reynolds</u> Signature</p>																																			

Draw the diagram to show the full diameter and right section of well only.

WELL CONSTRUCTOR'S REPORT

WISCONSIN STATE BOARD OF HEALTH

74

1. COUNTY Frank CHECK ONE ☒ Town ☐ Village ☐ City NAME Merriam RECEIVED
 2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.) Sec. 5 T10N R7E 1965
 3. OWNER AT TIME OF DRILLING Mr. Lucio Belknap S.A.L. 11

4. OWNER'S COMPLETE MAIL ADDRESS

5. Distance in feet from well to nearest: BUILDING SANITARY SEWER FLOOR DRAIN FOUNDATION DRAIN WASTE WATER DRAIN
 (Record answer in appropriate block) 40 C. I. TILE C. I. TILE SEWER CONNECTED INDEPENDENT C. I. TILE

CLEAR WATER DRAIN SEPTIC TANK PRIVY SEEPAGE PIT ABSORPTION FIELD BARN SILO ABANDONED WELL SINK HOLE
 C. I. TILE 60 75 100 30

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for:

Farm & Home

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	Surface	9.5			

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Top soil	Surface	6
Sand Gravel Clay	6	70
Sand Gravel	70	95

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Stand Bck	Surface	9.5

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
	Surface	

11. MISCELLANEOUS DATA

Yield test: 10 Hrs. at 15 GPM

Depth from surface to normal water level 27 ft.

Depth to water level when pumping 27 ft.

Water sample sent to Madison

Well construction completed on Nov 9 1965

Well is terminated 20 inches ☒ above ☐ below final groutWell disinfected upon completion ☒ Yes ☐ NoWell sealed watertight upon completion ☒ Yes ☐ No

laboratory on: Feb 17 1966

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE

Le Verne Heleach

Registered Well Driller

COMPLETE MAIL ADDRESS

245 Park Ave Prairie du

Please do not write in space below

COLIFORM TEST RESULT

GAS - 24 HRS.

GAS - 48 HRS.

CONFIRMED

REMARKS

FEB 12 1979

COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Merriman</u>	
LOCATION <u>1/4 Sec 5</u> <u>10N 7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE		<u>Dave Russell</u>	
OR - Grid or Street No. <u>5</u> Street Name		ADDRESS <u>Rte 1</u>		POST OFFICE <u>Merriman, Wis</u>	
AND - If available subdivision name, lot & block No.					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building Sanitary Bldg. Drain Sanitary Bldg. Sewer Floor Drain Connected To: Storm Bldg. Drain Storm Bldg. Sewer			
<u>8 ft</u> <u>25 ft</u> <u>37 ft</u> <u>40 ft</u>					
Street Sewer Other Sewers Foundation Drain Connected to: Sewage Sump Clearwater Sump Septic Tank Holding Tank Sewage Absorption Unit		San. Storm C.I. Other Sewer Sewage Sump C.I. Other Clearwater Sump Septic Tank Holding Tank Seepage Pit Seepage Bed Seepage Trench			
Privy Pet Waste Pit Pit: Nonconforming Existing Subsurface Pumproom Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit					
Temporary Manure Stack Watertight Liquid Manure Tank Solid Manure Storage Structure Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type) Other (Give Description)					
Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>Sand & Clay</u> Surface <u>20</u>			
<u>10</u> Surface <u>20</u>		<u>Sand</u> <u>20</u> <u>120</u>			
<u>20</u> <u>128</u>		<u>Gravel</u> <u>120</u> <u>128</u>			
CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly From (ft.) To (ft.)					
Dia. (in.) From (ft.) To (ft.)					
<u>6"</u> <u>New Stone</u> <u>Perforated</u> Surface <u>128</u>					
<u>7.45</u> <u>per ft</u> <u>IBC</u>					
<u>ASTMA 53</u> <u>per ft</u> <u>Metal</u>					
GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
<u>Drill Cutting</u> Surface <u>20</u>		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>Dec 7</u> 19 <u>78</u>			
Yield Test: <u>15</u> Hrs. at <u>25</u> GPM		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>95</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>95</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Dec 8</u> 19 <u>78</u>					
Opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of lining the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>La Verne Helber</u> Registered Well Driller		Complete Mail Address <u>245 Park Ave Prairie Du Sac</u>			

FEB 28 1980

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev. 12-76

76

1. COUNTY <u>Sauk</u>		CHUCK (A) ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City <u>Merriman</u>		Name <u>Ykal Reddeman</u>	
2. LOCATION <u>NE 1/4 NE 1/4 5</u> <u>10N 7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (A) ONE		ADDRESS <u>930 Cambridge</u>	
OR - Grid or Street No. <u>10N 7E</u> Street Name		POST OFFICE <u>Crystal Lake, Ill</u>			
AND - If available subdivision name, lot & block No.					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>17 ft</u>		Sanitary Bldg. Drain <u>40 ft</u>	
		Sanitary Bldg. Sewer <u>30 ft</u>		Floor Drain Connected To: <u>35 ft</u>	
		Storm Bldg. Drain <u>75 ft</u>		Storm Bldg. Sewer <u>100 ft</u>	
		Street Sewer		Other Sewers	
		San. Storm C.I. Other		Sewer Sewage Sump Clearwater Sump	
		Foundation Drain Connected to		Sewage Sump Clearwater Sump	
		Sewer Sewage Sump Clearwater Sump		Sewage Sump Clearwater Sump	
		Privy Pet Waste Pit		Pit: Nonconforming Existing	
		Well Pump Tank		Subsurface Pumproom Nonconforming Existing	
		Temporary Manure Stack		Watertight Liquid Manure Tank	
		Solid Manure Storage Structure		Subsurface Gasoline or Oil Tank	
		Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)	
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.) From (ft.) To (ft.)		<u>Sand & Gravel</u> Surface 30			
<u>10</u> Surface <u>15</u>		<u>Sand</u> 30 80			
<u>6</u> <u>15</u> <u>112</u>		<u>Sand & Gravel</u> 80 112			
7. CASING, LINER, CURBING AND SCREEN		Material, Weight, Specification & Method of Assembly From (ft.) To (ft.)			
<u>6" New Stars Bel Steel</u>		Surface 109			
<u>19.45 ft J.C.</u>					
<u>Sumitomo Metal Lull</u>					
<u>ASTMA 53</u>					
<u>3 ft Johnson Stainless Screen 15 ft</u>		Installed from 109-112			
8. GROUT OR OTHER SEALING MATERIAL		Type of Drilling Machine Used			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air			
<u>Drill Cuttings</u> Surface 15		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary			
		<input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>May 26</u> 1979			
Yield Test: <u>15</u> Hrs. at <u>20</u> GPM		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>70</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>70</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>May 29</u> 1979					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>L. H. Meloch</u>		Complete Mail Address <u>245 Park Ave Prairie du Sac</u>			
Registered Well Driller					

COUNTY <u>Sauk</u>		CHECK (1) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Messimer</u>	
2. LOCATION <u>SW 1/4 NW 1/4</u>		Section <u>5</u> Township <u>10N</u> Range <u>7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (1) ONE <u>Daniel Fursell</u>	
OR - Grid or Street No. Street or Road Name		ADDRESS <u>P.R.</u>		POST OFFICE <u>Messimer, Wis</u> ZIP CODE <u>53588</u>	
AND - If available subdivision name, lot & block No.					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>15 ft</u> Sanitary Bldg. Drain <u>30 ft</u> Sanitary Bldg. Sewer <u>35 ft</u> Floor Drain Connected To: <u>none</u> Storm Bldg. Drain <u>none</u> Storm Bldg. Sewer <u>none</u>			
Street Sewer <u>San.</u> Other Sewers <u>Storm</u> Foundation Drain Connected to: <u>Clearwater Dr.</u> Sewage Sump <u>Clearwater Sump</u> Clearwater Sump <u>75'</u> Septic Tank <u>75'</u> Holding Tank <u>75'</u> Sewage Absorption Unit <u>Seepage Pit</u> Manure Hopper or Retention or Pneumatic Tank <u>Seepage Bed</u> Seepage Trench <u>100'</u>					
Privy <u>Pet Waste Pit</u> Pit: Nonconforming Existing <u>Well</u> Subsurface Pumproom <u>Nonconforming Existing</u> Barn Gutter <u>Animal Barn Pen</u> Animal Yard <u>Animal</u> Silo With Pit <u>Glass Lined Storage Facility</u> Silo w/o Pit <u>Earthen Silage Storage Trench</u> Earthen Manure Basin <u>Or Pit</u>					
Temporary Manure Stack or Platform <u>Watertight Liquid Manure Tank or Basin</u> Manure Pressure Pipe <u>Subsurface Gasoline or Oil Tank</u> Waste Pond or Land Disposal Unit (Specify Type) <u>Manure Storage Basin</u> Other (Describe) <u>Concrete Floor Only</u> <u>Concrete Floor and Partial Concrete Walls</u>					
5. Well is intended to supply water for: <u>Trailer Home</u>		9. FORMATIONS			
6. DRILLHOLE					
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		Kind From (ft.) To (ft.)			
<u>10</u> Surface <u>15</u>		<u>Sandy Clay</u> Surface <u>10</u>			
<u>15</u> <u>112</u>		<u>Sand & Gravel</u> <u>10</u> <u>105</u>			
		<u>Gravel</u> <u>105</u> <u>112</u>			
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification Mfg. & Method of Assembly		From (ft.) To (ft.)			
<u>6" Stone Bed Steel</u>		Surface <u>109</u>			
<u>To C. 19.45 ft</u>					
<u>ASTMA 53 Stainless Steel</u>					
<u>Screen Installed</u>					
<u>15 ft.</u>		<u>109</u> <u>112</u>			
8. GROUT OR OTHER SEALING MATERIAL					
Kind From (ft.) To (ft.)					
<u>Drill Cuttings</u>		Surface <u>15</u>			
11. MISCELLANEOUS DATA		10. TYPE OF DRILLING MACHINE USED			
Yield Test: <u>10</u> Hrs. at <u>20</u> GPM		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water			
Depth from surface to normal water level <u>32</u> Ft.		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air			
Depth of water level when pumping <u>32</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary			
Well construction completed on <u>July 29</u> 19 <u>80</u>		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>July 30</u> 19 <u>80</u>					
opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of drilling the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>L. Verne Hulse</u> Registered Well Driller		Business Name and Complete Mailing Address <u>245 Park Ave Prairie du Sac, Wis</u>			

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3366-15

Rev. 2

JAN 25 1984

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1. COUNTY <u>Lauke</u>		CHECK (✓) ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>McCurmick</u>	
2. LOCATION <u>Section of Gov't. Lot</u> <u>5 10N 7E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ON		ADDRESS <u>PR.</u>	
AND - If available subdivision name, lot & block No. <u>[SW 1/4]</u>		POST OFFICE <u>McCurmick, Wis</u>		ZIP CODE	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Sanitary Bldg. Drain C.I. <u>75</u> Other		Sanitary Bldg. Sewer C.I. <u>84</u> Other	
Floor Drain Connected To: C.I. <u>none</u> Other Sewer		Storm Bldg. Drain C.I. Other		Storm Bldg. Sewer C.I. Other	
Street Sewer San. Storm C.I. Other		Foundation Drain Connected to: Sewage Sump C.I. Other		Clearwater Sump Septic Tank Holding Tank	
Sewage Absorption Unit Seepage Pit Seepage Bed <u>100'</u> Seepage Trench		Manure Hopper or Retention or Pneumatic Tank			
Privy Pet Waste Pit		Pit: Nonconforming Existing Well Nonconforming Existing		Barn Gutter Animal Barn Pen	
Animal Yard Animal Silo With Pit		Glass Lined Storage Facility		Silo w/o Pit	
Earthen Silage Storage Trench Or Pit		Earthen Manure Basin			
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin		Manure Pressure Pile	
Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls	
Other (Describe)					
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind From (ft.) To (ft.)			
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>Sand Gravel Clay</u> Surface <u>25</u>			
<u>10</u> Surface <u>20</u>		<u>Sand Gravel</u> <u>25</u> <u>120</u>			
<u>6</u> <u>20</u> <u>290</u>		<u>Sand</u> <u>120</u> <u>195</u>			
7. CASING, LINER, CURBING AND SCREEN		<u>Sand & Gravel</u> <u>195</u> <u>24</u>			
Material, Weight, Specification		<u>Sand Rock</u> <u>240</u> <u>290</u>			
Dia. (in.) Mfg. & Method of Assembly					
<u>6" New Stone Pipe</u> Surface <u>277</u>					
<u>19.18 ft J & C</u>					
<u>W/O COUPL</u> <u>A120</u>					
<u>A.F. Sied (Union, J.L. Sumner OK)</u>					
8. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
<u>Drill Cuttings</u> Surface <u>20</u>		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>Sept 13</u> 19 <u>84</u>			
Yield Test: <u>14</u> Hrs. at <u>25</u> GPM		<input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>80</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>87</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Sept 14</u> 19 <u>83</u>					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Y. H. White</u> Registered Well Driller		Business Name and Complete Mailing Address <u>245 Park Ave Prairie du Sac.</u>			

B-84

L5119

ADR 5 1071

79

WELL CONSTRUCTOR'S REPORT

Well-6

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPYSTATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

1. COUNTY Sauk CHECK ONE ☒ Town ☐ Village ☐ City Prairie du Sac

2. LOCATION (Number and Street or R. section, section, township and range. Also give subdivision name, lot and block numbers when available.)
7th & 1st NE 1/4 Sec 26 T10 R6E

3. OWNER AT TIME OF DRILLING Norman Kera

4. OWNER'S COMPLETE MAIL ADDRESS RR Prairie du Sac

5. Distance in feet from well to nearest:

BUILDING C.I.	SANITARY C.I.	SEWER TILE	FLOOR DRAIN C.I.	TILE	FOUNDATION DRAIN	SEWER CONNECTED	INDEPENDENT	WASTE WATER DRAIN C.I.	TILE
15 ft	30 ft	30 ft	30 ft		none			35 ft	

6. CLEAR WATER DRAIN C.I. 50 ft TILE 75 SEPTIC TANK 100 PRIVY 100 SEEPAGE PIT 100 ABSORPTION FIELD 100 BARN 100 SILO 15 ft ABANDONED WELL 40 ft SINK HOLE sand point

7. OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

8. Well is intended to supply water for: Trunk & Home

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	Surface	27.5			

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand	Surface	40
Sand & Gravel	40	235
Sand Rock	237	270
Soap Stone	270	275

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
11	Mod. Stand Bck.	Surface	2.55
Steel	19.45 #/ft		

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
	Surface	

11. MISCELLANEOUS DATA

Well test: 12 Hrs. at 20 GPM

Depth from surface to normal water level 85 ft.

Depth to water level when pumping 85 ft.

Water sample sent to Madison laboratory on: Oct 23 1970

Well construction completed on Oct 22 1970

Well is terminated 12 inches ☒ above final grade ☐ below

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Our opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

12. SIGNATURE Norman Kera COMPLETE MAIL ADDRESS 745 Park Ave Prairie du Sac

Registered Well Driller

Please do not write in space below

COLIFORM TEST RESULT | GAS - 24 HRS. | GAS - 48 HRS. | CONFIRMED | REMARKS

WELL CONSTRUCTOR'S REPORT

DEPARTMENT OF RESOURCE DEVELOPMENT

SUMMIT

80

1. COUNTY Laurens CHECK ONE ☒ Town ☐ Village ☐ City NAME Prairie du Sac, Wis

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)
SE 1/4 Sec 24 T10N R6E

3. OWNER AT TIME OF DRILLING Darwin Zick

4. OWNER'S COMPLETE MAIL ADDRESS Prairie du Sac, Wis

5. Distance in feet from well to nearest:
(Record answer in appropriate block)

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C. I.	C. I.	C. I.	SEWER CONNECTED	INDEPENDENT
8	15	15	none	20

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
C. I.	TILE							
30		30	60					

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Home

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	Surface	260			
6	280				

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand Gravel & Clay	Surface	50
Sand & Gravel	50	250
Sand Rock	250	280

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6"	New Stand Bch	Surface	264
	Steel 19.45 lbs		

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Surface		

11. MISCELLANEOUS DATA

Yield test: 15 Hrs. at 15 GPM

Depth from surface to normal water level 100 ft.

Depth to water level when pumping 100 ft.

Water sample sent to Madison laboratory on: Aug 28 1968

Well construction completed on Aug 28 1968

Well is terminated 14 inches ☒ above ☐ below final gra

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE LaVerne Helsch Registered Well Driller COMPLETE MAIL ADDRESS 245 Park Ave Prairie du

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
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State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:

- White Copy - Division's Copy
- Green Copy - Driller's Copy
- Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev

COUNTY Sauk CHECK (✓) ONE: ☒ Town ☐ Village ☐ City Name Lungate

2. LOCATION SC 1/4 SE 1/4 Section 24 Township 10N Range 6E 3. NAME ☒ OWNER ☐ AGENT AT TIME OF DRILLING CHECK (✓) ONE Roberts Henry

OR - Grid or Street No. Street or Road Name ADDRESS Rte 1

AND - If available subdivision name, lot & block No. POST OFFICE Drairie Du Lac, WI ZIP CODE 53578

1. Distance in feet from well to nearest: (Record answer in appropriate block)		Building	Sanitary Bldg. Drain	Sanitary Bldg. Sewer	Floor Drain Connected To:	Storm Bldg. Drain	Storm Bldg. Sewer
<u>8 ft</u>		C.I.	Other	C.I.	Other	C.I.	Other
<u>18 ft</u>		C.I.	Other	C.I.	Other	C.I.	Other
<u>23 ft</u>		C.I.	Other	C.I.	Other	C.I.	Other
<u>26 ft</u>		C.I.	Other	C.I.	Other	C.I.	Other

Street Sewer	Other Sewers	Foundation Drain Connected to:	Sewage Sump	Clearwater Sump	Septic Tank	Holding Tank	Sewage Absorption Unit	Manure Hopper or Retention or Pneumatic Tank
San.	Storm	C.I.	Other	Sewer	Sewage Sump	Clearwater Sump	Seepage Pit	Seepage Bed

Privy	Pet Waste Pit	Pit: Nonconforming Existing	Subsurface Pumproom	Barn Gutter	Animal Barn Pen	Animal Yard	Silo With Pit	Glass Lined Storage Facility	Silo w/o Pit	Earthen Silage Storage Trench Or Pit	Earthen Manure Basin
		Well	Nonconforming Existing								
		Pump									
		Tank									

Temporary Manure Stack or Platform	Watertight Liquid Manure Tank or Basin	Manure Pressure Pipe	Subsurface Gasoline or Oil Tank	Waste Pond or Land Disposal Unit (Specify Type)	Manure Storage Basin	Other (Describe)
					Concrete Floor Only	
					Concrete Floor and Partial Concrete Walls	

5. Well is intended to supply water for: Home

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>20</u>	<u>Surface</u>	<u>20</u>			
<u>12</u>	<u>20</u>	<u>75</u>			

7. CASING, LINER, CURBING AND SCREEN

Dia. (in.)	Material, Weight, Specification	From (ft.)	To (ft.)
<u>6"</u>	<u>Round Barbed Steel</u>	<u>Surface</u>	<u>72</u>
<u>19.45</u>	<u>1/2" J.C.</u>		
<u>3'</u>	<u>Johnson Stainless Screen installed</u>	<u>72'</u>	<u>75'</u>

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Drill Cuttings</u>	<u>Surface</u>	<u>20</u>

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Sandy Gravel</u>	<u>Surface</u>	<u>65</u>
<u>Gravel</u>	<u>65</u>	<u>75</u>

10. TYPE OF DRILLING MACHINE USED

<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Rotary-hammer w/drilling mud & air	<input type="checkbox"/> Jetting with
<input type="checkbox"/> Rotary-air w/drilling mud	<input type="checkbox"/> Rotary-hammer & air	<input type="checkbox"/> Air
<input type="checkbox"/> Rotary-w/drilling mud	<input type="checkbox"/> Reverse Rotary	<input type="checkbox"/> Water

11. MISCELLANEOUS DATA

Yield Test: 15 Hrs. at 25 GPM

Depth from surface to normal water level 35 Ft.

Depth of water level when pumping 25 Ft. Stabilized ☒ Yes ☐ No

Well construction completed on Oct 15 1982

Well is terminated 12 inches ☒ above ☐ below final grade

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on Oct 19 1982

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature [Signature] Business Name and Complete Mailing Address 215 D. R. P. A. J. 11.

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15
Rev. 2-79

JAN 25 1984

1. COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Sumpter</u>	
2. LOCATION <u>Sec 14 T1S R1E</u>		Section <u>24</u> Township <u>10N</u> Range <u>6E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Wale Kieck</u>	
OR - Grid or Street No. <u> </u> Street or Road Name <u> </u>		ADDRESS <u>Rte 1</u>		POST OFFICE <u>Prairie Du Sac, WI</u> ZIP CODE <u> </u>	
AND - If available subdivision name, lot & block No. <u>Lot 18 & 19</u>		Subdivision Name <u>Gruber Grove</u>			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building		Sanitary Bldg. Drain	
		Sanitary Bldg. Sewer		Floor Drain Connected To:	
		C.I. Other		C.I. Sewer Other Sewer	
		60 ft 75 ft 86 ft		none	
Street Sewer		Other Sewers		Foundation Drain	
San. Storm C.I. Other		Sewer		Sewage Pump	
		Clearwater Dr.		C.I. Other	
				Clearwater Sump	
Privy		Pet Waste Pit		Pit: Nonconforming Existing	
				Well Pump Tank	
				Subsurface Pumproom	
				Nonconforming Existing	
				Barn Gutter	
				Animal Barn Pen	
				Animal Yard	
				Silo With Pit	
				Glass Lined Storage Facility	
				Silo w/o Pit	
				Earthen Silage Storage Trench Or Pit	
				Earthen Manure Ba	
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin		Manure Pressure Pipe	
				Subsurface Gasoline or Oil Tank	
				Waste Pond or Land Disposal Unit (Specify Type)	
				Manure Storage Basin	
				Concrete Floor Only	
				Concrete Floor and Partial Concrete Walls	
				Other (Describe)	
5. Well is intended to supply water for: <u>Home</u>				9. FORMATIONS	
6. DRILLHOLE				Kind	
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)				From (ft.) To (ft.)	
11 Surface 20				Surface 3	
6 20 187				3 187	
7. CASING, LINER, CURBING AND SCREEN				75 160	
Material, Weight, Specification				160 180	
Dia. (in.) Mfg. & Method of Assembly From (ft.) To (ft.)				180 187	
6" New Hard Bel Steel Surface 184					
19 18 ft 1/2" A 120					
W/O Casing 4. F. Stegmann (Union, 7 1/2" Suni, or DR)					
3" Johnson Steels 184 187					
Screen 15 slot					
8. GROUT OR OTHER SEALING MATERIAL				10. TYPE OF DRILLING MACHINE USED	
Kind From (ft.) To (ft.)				<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with	
Drill Cuttings Surface 50				<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air	
				<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water	
11. MISCELLANEOUS DATA				Well construction completed on <u>Oct 29</u> 19 <u>83</u>	
Yield Test: <u>15</u> Hrs. at <u>25</u> GPM				Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below	
Depth from surface to normal water level <u>30</u> Ft.				Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth of water level when pumping <u>30</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water sample sent to <u>Madison</u> laboratory on <u>Nov 28</u> 19 <u>83</u>					

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

D O / A 1 0 0

Business Name and Complete Mailing Address

2150 N. 1st St. Madison, WI

83

and give name
- H. R. L. &
- TION
- MAY 14 1951
- BUREAU
- SAN FRANCISCO

1035 Walnut St

State of Wisconsin
Department of Natural Resources
Private Water Supply
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15 Rev. 2-79

JUN 12 1981 ^{Rev}

1. COUNTY		Sauk		CHECK (✓) ONE: <input type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Prairie Du Sac</u>	
2. LOCATION		NE OR - Grid or Street No.		Section <u>25</u> Township <u>10N</u> Range <u>6E</u>		3. NAME <input type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ON.	
		Street or Road Name		ADDRESS <u>Klopotee Der. Co.</u>		ZIP CODE <u>53593</u>	
AND - If available subdivision name, lot & block No. <u>Lot 15 The Winding Sub</u>		POST OFFICE <u>Verona WI</u>		ZIP CODE <u>53593</u>			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>12'</u>		Sanitary Bldg. Drain C.I. Other		Sanitary Bldg. Sewer C.I. Other	
Floor Drain Connected To:		Storm Bldg. Drain C.I. Other		Storm Bldg. S.C.I. Other			
Street Sewer San. Storm C.I. Other		Foundation Drain Connected to: Sewer Clearwater Dr. Sewage Sump Clearwater Sump		Sewage Sump C.I. Other		Clearwater Sump Septic Tank Holding Tank	
Sewage Absorption Unit Seepage Pit Seepage Bed Seepage Trench		Manure Hopper Retention or Pneumatic Tank					
Privy Pet Waste Pit		Pit: Nonconforming Existing Well Pump Tank		Subsurface Pumproom Nonconforming Existing		Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit Earthen Manure Ba	
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin		Manure Pressure Pipe		Subsurface Gasoline or Oil Tank	
Waste Pond or Land Disposal Unit (Specify Type)		Manure Storage Basin Concrete Floor Only Concrete Floor and Partial Concrete Walls		Other (Describe)			
5. Well is intended to supply water for: <u>House</u>				9. FORMATIONS			
				Kind From (ft.) To (ft.)			
				<u>clay</u> Surface <u>5</u>			
				<u>boulders + gravel</u> <u>5</u> <u>35</u>			
				<u>sand + gravel</u> <u>35</u> <u>110</u>			
				<u>sand</u> <u>110</u> <u>189</u>			
				<u>sand + gravel</u> <u>189</u> <u>212</u>			
				<u>gravel</u> <u>212</u> <u>249</u>			
				<u>well bottomed in gravel</u>			
6. DRILLHOLE				10. TYPE OF DRILLING MACHINE USED			
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)				<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary-hammer drilling mud & air <input type="checkbox"/> Jetting with			
<u>8</u> Surface <u>249</u>				<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
				<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
7. CASING, LINER, CURBING AND SCREEN				11. MISCELLANEOUS DATA			
Material, Weight, Specification Mfg. & Method of Assembly				Yield Test: <u>48</u> Hrs. at <u>20</u> GPM			
Dia. (in.) From (ft.) To (ft.)				Well construction completed on <u>June 8</u> 19 <u>81</u>			
<u>6'</u> PE Surface <u>249</u>				Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
ASTMA53				Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<u>.280 wall</u>				Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
<u>7491</u>				Depth from surface to normal water level <u>135</u> Ft.			
				Depth of water level when pumping <u>175</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
8. GROUT OR OTHER SEALING MATERIAL				Water sample sent to <u>Madison</u> laboratory on <u>6-9</u> 19 <u>81</u>			
Kind From (ft.) To (ft.)							
<u>mud cuttings</u> Surface <u>249</u>							

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Business Name and Complete Mailing Address

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

86

COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Brian de Sa</u>	
2. LOCATION OR - Grid or Street No. <u>NW</u> Section <u>25</u> Township <u>10N</u> Range <u>6E</u>		3. NAME <u>Brian Plumbing</u>		OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE	
AND - If available subdivision name, lot & block No. <u>Lot 30 The Windings</u>		ADDRESS <u>806 Phillips</u>		POST OFFICE <u>Sauk City, WI</u> ZIP CODE <u>53583</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>12</u>		Sanitary Bldg. Drain C.I. Other	
San. Storm C.I. Other		Foundation Drain Connected to: Sewer Sewage Sump Clearwater Dr. Clearwater Sump		Sanitary Bldg. Sewer C.I. Other	
Floor Drain Connected To: C.I. Sewer Other Sewer		Storm Bldg. Drain C.I. Other		Storm Bldg. Se C.I. Other	
Sewage Absorption Unit: Seepage Pit Seepage Bed Seepage Trench		Manure Hopper or Retention or Pneumatic Tank			
Privy Pet Waste Pit: Pit: Nonconforming Existing Well Pump Tank		Subsurface Pumproom: Nonconforming Existing		Barn Gutter Animal Barn Pen Animal Yard Silo With Pit Glass Lined Storage Facility Silo w/o Pit Earthen Silage Storage Trench Or Pit Earthen Manure Bas	
Temporary Manure Stack or Platform		Watertight Liquid Manure Tank or Basin		Manure Pressure Pipe Subsurface Gasoline or Oil Tank Waste Pond or Land Disposal Unit (Specify Type)	
				Manure Storage Basin: Concrete Floor Only Concrete Floor and Partial Concrete Walls Other (Describe)	
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind		From (ft.) To (ft.)	
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		<u>Sand + Clay</u>		<u>Surface</u> <u>15</u>	
<u>8</u> <u>Surface</u> <u>190</u>		<u>Sand + gravel</u>		<u>15</u> <u>198</u>	
<u>6</u> <u>190</u> <u>198</u>					
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification Mfg. & Method of Assembly		From (ft.) To (ft.)			
<u>6 Std black pipe, .280 wall, weld jts, A-53 KHC</u>		<u>Surface</u> <u>190</u>			
8. GROUT OR OTHER SEALING MATERIAL		Kind		From (ft.) To (ft.)	
<u>mud + Cuttings</u>		<u>Surface</u>		<u>190</u>	
11. MISCELLANEOUS DATA		10. TYPE OF DRILLING MACHINE USED			
Yield Test: <u>5</u> Hrs. at <u>21</u> GPM		<input type="checkbox"/> Cable Tool <input checked="" type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water			
Well is terminated <u>18</u> inches		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air			
Depth from surface to normal water level <u>125</u> Ft.		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary			
Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well construction completed on <u>7-8</u> 19 <u>87</u>			
Depth of water level when pumping <u>149</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>7-9</u> 19 <u>87</u>					

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Sam H. L. Thiel

Registered Well Driller

Business Name and Complete Mailing Address

**SAM'S ROTARY DRILLERS
ROUTE 2**

RANDOLPH, WISCONSIN 53586

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County SAAK { Town ☐ Village ☒ City ☐ PRAIRE DU SAC
 Check one and give name

2. Location Sec 25 T 24 N R 16 E
 Name of street and number of premise or Section, Town and Range numbers

3. Owner ☒ or Agent ☐ CHARLES JOHNSON
 Name of individual, partnership or firm

4. Mail Address P.R. PRAIRE DU SAC
 Complete address required

5. From well to nearest: Building 40 ft; sewer ft; drain ft; septic tank 100 ft;
 dry well or filter bed 120 ft; abandoned well ft.

6. Well is intended to supply water for: C. H. AGE

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
4	0	122	8"	0	40

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
4	Steel	0	116
4	SCREEN	116	122

9. GROUT:

Kind	From (ft.)	To (ft.)
Grout	0	40

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 8 GPM.

Depth from surface to water-level: 90 ft.

Water-level when pumping: 90 ft.

Water sample was sent to the state laboratory at:

MADISON on 8/27 1954

Signature Clayton S. Reynolds
 Registered Well Driller

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Top soil	0	5
CLAY & GRAVEL	5	90
SAND & GRAVEL	90	122

RECEIVED

AUG 31 1954

 ENVIRONMENTAL
 SANITATION

Construction of the well was completed on:

8/10 1954

The well is terminated 8 inches.
☐ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes ✓ No

Was the well sealed watertight upon completion?

Yes ✓ No

Rec'd No

Ans'd

Interpretation

10 ml 10 ml 10 ml 10 ml 10 ml

Gas—24 hrs.

48 hrs.

Confirm

B. Coli

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

87

RECEIVED
SAUK
BUREAU
ENG.
1949

1. County SAUK { Town ☒ Village ☐ City ☐ of PRAIRE DU SACK
2. Location N.W. 1/4 of S.E. 1/4 OF SEC. 25. T.10. R6 E. Check one and give name
Name of street and number of premise or Sec. Tn. and R. numbers
3. Owner ☒ or Agent ☐ RUDOLPH MILLER.
Name of individual, partnership or firm
4. Mail Address PRAIRE DU SACK.
Complete address required

5. From well to nearest: Building 4 ft; sewer 8 ft; drain 0 ft; septic tank 50 ft;
dry well or filter bed 70 ft; abandoned well 0 ft.
6. Well is intended to supply water for: Private Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)
8	0	30
6	30	166

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Standard Weight		
	Steel Pipe	0	166

9. GROUT:

Kind	From (ft.)	To (ft.)
CLAY	0	30

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Clay and SAND	0	30
SAND	30	164
GRAVEL	164	166

11. MISCELLANEOUS DATA:

Yield test: 10 Hrs. at 8 GPM.
Depth from surface to water: 80 ft.
Water-level when pumping: 85 ft.
Water sample sent to laboratory at
Madison on August 10 19 49

Construction of the well was completed on August 6 19 49
The well is terminated 70 inches
☐ above, below ☒ the permanent ground surface.
Was the well disinfected upon completion?
Yes X No

Was the well sealed watertight upon completion?
Yes X No

Signature Wm H Smith
Registered Well Driller

Baraboo Wis
Complete Mail Address
1035 Walnut St.

WELL CONSTRUCTOR'S REPORT
FORM 3300-15

DEC 20 1971

88

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

1. COUNTY <u>Sauk</u>		CHECK ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		NAME <u>Surging</u>	
2. LOCATION - 1/4 Section <u>SE 1/4</u> Section <u>24</u> Township <u>10N</u> Range <u>6E</u>		3. OWNER AT TIME OF DRILLING <u>Robert Conrad</u>			
OR - Grid or street no.		Street name		ADDRESS <u>R.R.</u>	
AND - If available subdivision name, lot & block no.		POST OFFICE <u>Princeton, Wis.</u>			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING C.I. <u>16 ft</u>	SANITARY SEWER TILE <u>45 ft</u>	FLOOR DRAIN C.I. <u>52 ft</u>	FOUNDATION DRAIN SEWER CONNECTED <u>more</u> INDEPENDENT <u>40 ft</u>
CLEAR WATER DRAIN C.I. <u>50 ft</u>	SEPTIC TANK TILE <u>75</u>	PRIVY	SEEPAGE PIT <u>85</u>	ABSORPTION FIELD	BARN SILO ABANDONED WELL SINK HOLE

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for: Home

6. DRILLHOLE						9. FORMATIONS			
Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)	Kind	From (ft.)	To (ft.)	
<u>16</u>	<u>Surface</u>	<u>15</u>				<u>Clay</u>	<u>Surface</u>	<u>16</u>	
<u>6</u>	<u>15</u>	<u>86</u>				<u>Sand & Gravel</u>	<u>16</u>	<u>40</u>	
7. CASING, LINER, CURBING, AND SCREEN									
Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)						
<u>6"</u>	<u>Standard Pipe</u>	<u>Surface</u>	<u>77</u>						
	<u>Steel</u>								
	<u>19.18 gdw ft</u>								
	<u>3 ft Johnson Screen</u>		<u>15</u>						
	<u>with 4 ft 5" pipe on top of screen</u>								

8. GROUT OR OTHER SEALING MATERIAL			10. TYPE OF DRILLING MACHINE USED		
Kind	From (ft.)	To (ft.)	<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Direct Rotary	<input type="checkbox"/> Reverse Rotary
	<u>Surface</u>		<input type="checkbox"/> Rotary - air w/drilling mud	<input type="checkbox"/> Rotary - hammer with drilling mud & air	<input type="checkbox"/> Jetting with Air <input type="checkbox"/> Water
			Well construction completed on <u>Dec 9</u> 19 <u>71</u>		

11. MISCELLANEOUS DATA			Well is terminated	
Yield test: <u>15</u>	Hrs. at <u>20</u>	GPM	<u>10</u> inches	<input checked="" type="checkbox"/> above final gr <input type="checkbox"/> below
Depth from surface to normal water level <u>40</u> ft.			Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Depth to water level when pumping <u>40</u> ft.			Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Water sample sent to <u>Madison</u>			laboratory on: <u>Dec 10</u> 19 <u>71</u>	

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seal type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc. should be given on reverse side.

SIGNATURE <u>Edgar H. H. H.</u>	COMPLETE MAIL ADDRESS <u>345 Park Ave Princeton, Wis.</u>
Registered Well Driller	

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS
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FEB 2 1985

COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Sumpter</u>	
2. LOCATION <u>1/4 Section or Govt. Lot</u> <u>24</u> <u>10N 6E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <u>Mrs. Carolyn Jones</u>		AGENT AT TIME OF DRILLING CHECK (✓) ONE	
OR - Grid or Street No. <u>Street or Road Name</u>		ADDRESS <u>RR.</u>		POST OFFICE <u>Platteville, WI</u> ZIP CODE <u>53570</u>	
AND - If available subdivision name, lot & block No. <u>Grubers Grove</u>					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>6 ft</u> Sanitary Bldg. Drain <u>C.I.</u> Other <u>20 ft</u> Sanitary Bldg. Sewer <u>C.I.</u> Other <u>none</u>		Floor Drain Connected To: <u>none</u> Storm Bldg. Drain <u>C.I.</u> Other <u>none</u> Storm Bldg. Sewer <u>C.I.</u> Other <u>none</u>	
Street Sewer <u>San.</u> Other Sewers <u>C.I.</u> Other <u>none</u>		Foundation Drain Connected to: <u>Sewer</u> <u>Clearwater Dr.</u> Sewage Sump <u>Clearwater Sump</u> C.I. Other <u>none</u>		Clearwater Sump <u>50'</u> Septic Tank <u>50'</u> Holding Tank <u>50'</u> Sewage Absorption Unit <u>Seepage Pit</u> <u>Seepage Bed</u> <u>75'</u> <u>Seepage Trench</u>	
Privy <u>Pet Waste Pit</u> Pit: Nonconforming Existing <u>Well</u> <u>Pump</u> <u>Tank</u>		Subsurface Pumproom <u>Nonconforming Existing</u> Barn Gutter <u>Animal Barn Pen</u> <u>Animal Yard</u> <u>Silo With Pit</u> <u>Glass Lined Storage Facility</u> <u>Silo w/o Pit</u> <u>Earthen Silage Storage Trench Or Pit</u> <u>Earthen Manure Basin</u>			
Temporary Manure Stack or Platform <u>Watertight Liquid Manure Tank or Basin</u> <u>Manure Pressure Pipe</u> <u>Subsurface Gasoline or Oil Tank</u> <u>Waste Pond or Land Disposal Unit (Specify Type)</u> <u>Manure Storage Basin</u> <u>Concrete Floor Only</u> <u>Concrete Floor and Partial Concrete Walls</u> <u>Other (Describe)</u>					
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
5. DRILLHOLE					
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		Kind From (ft.) To (ft.)			
<u>6</u> <u>Surface</u> <u>15</u> <u>69</u>		<u>Sands & Gravel</u> <u>Surface</u> <u>60</u>			
		<u>Gravel</u> <u>60</u> <u>69</u>			
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification Mfg. & Method of Assembly					
Dia. (in.) From (ft.) To (ft.)					
<u>6" New Standard Steel</u> <u>Surface</u> <u>66</u>					
<u>19.45 # per ft J&C.</u>					
<u>ASTM A-53</u>					
<u>3' Johnson Chainless Screen</u>					
<u>5 slot installed</u> <u>66</u> <u>69</u>					
8. GROUT OR OTHER SEALING MATERIAL					
Kind From (ft.) To (ft.)					
<u>Drill Cuttings</u> <u>Surface</u> <u>15</u>					
11. MISCELLANEOUS DATA					
Yield Test: <u>20</u> Hrs. at <u>20</u> GPM		Well construction completed on <u>Apr 9</u> 19 <u>85</u>			
Depth from surface to normal water level <u>25</u> Ft.		Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth of water level when pumping <u>25</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Apr 11</u> 19 <u>85</u>		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.

Signature

Business Name and Complete Mailing Address

FEB 28 1980

State of Wisconsin
Department of Natural Resources
Box 7921
Madison, Wisconsin 53707

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

WELL CONSTRUCTOR'S REPORT
Form 3300-15

Rev. 12-7

9C

1. COUNTY <u>Sauk</u>		CHECK ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>SUMPTER (SOUTH TOWN)</u>	
2. LOCATION <u>SE, SE 1/4 Section 24, 10N 6E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING <u>Don Bauer</u>			
OR - Grid or Street No. <u>10N 6E</u> Street Name <u></u>		ADDRESS <u>Sturtevant, Wis</u>			
AND - If available subdivision name, lot & block No. <u>Grubbs Home</u>		POST OFFICE <u>Sturtevant, Wis</u>			
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building		Sanitary Bldg. Drain	
		C.I. <u>8 ft</u> Other <u>20 ft</u>		Sanitary Bldg. Sewer	
				C.I. <u>35 ft</u> Other <u>none</u>	
		Floor Drain Connected To:		Storm Bldg. Drain	
		C.I. Sewer Other Sewer		C.I. Other	
		Street Sewer		Sewage Absorption Unit	
		San. Storm C.I. Other		Seepage Pit	
		Foundation Drain Connected to:		Seepage Bed	
		Sewer Sewage Sump C.I. Other		Seepage Trench <u>75 ft</u>	
		Clearwater Dr. Clearwater Sump			
		Clearwater Sump		50 ft	
Privy		Pet Waste Pit		Pit: Nonconforming Existing	
				Well Pump Tank	
		Subsurface Pumproom		Barn Gutter	
		Nonconforming Existing		Animal Barn Pen	
				Animal Yard	
				Silo With Pit	
				Glass Lined Storage Facility	
				Silo w/o Pit	
				Earthen Silage Storage Trench Or	
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure	
		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)	
				Other (Give Description)	
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
		Kind		From (ft.)	To (ft.)
6. DRILLHOLE				Surface	7
Dia. (in.) From (ft.) To (ft.)		Dia. (in.) From (ft.) To (ft.)			
10 Surface 20		Clay		7	50
6 20 65		Sand		50	60
		Sand & Gravel			
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly		From (ft.)		To (ft.)	
6" New Star Bel Steel		Surface		62	
19.45 New 1/2" I.C. ASTM #5.3					
3 ft Johnson Stainless Screen					
Installed 15 Slot from 62-65 ft					
8. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
Drill Cuttings Surface 20		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
		Well construction completed on <u>Sept 18</u> 1979			
11. MISCELLANEOUS DATA		Well is terminated <u>12</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Yield Test: <u>12</u> Hrs. at <u>30</u> GPM		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth from surface to normal water level <u>14</u> Ft.		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>20</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Water sample sent to <u>Madison</u> laboratory on <u>Sept 19</u> 1979					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Lo Vere Hiesch</u>		Complete Mail Address <u>245 Park Ave Prairie du Rocher</u>			
Registered Well Driller					

FEB 12 1977

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COUNTY <u>Sauk</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Chington</u>	
LOCATION <u>Section 24</u> OR - Grid or Street No. <u>10N 6E</u>		Township <u>10N</u> Range <u>6E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ONE <u>Wilfred Ludwig</u>	
AND - If available subdivision name, lot & block No. <u>Grubbs Grove</u>		ADDRESS <u>RR.</u>		POST OFFICE <u>Prairie du Sac, Wisc.</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>60 ft</u>		Sanitary Bldg. Drain <u>40 ft</u>	
		Sanitary Bldg. Sewer <u>60 ft</u>		Floor Drain Connected To: <u>30 ft</u>	
		C.I. <u>40 ft</u> Other		C.I. <u>60 ft</u> Other	
		C.I. <u>30 ft</u> Other		C.I. <u>30 ft</u> Other	
Street Sewer		Other Sewers		Foundation Drain Connected to:	
San. Storm C.I. Other		Sewer		Sewage Sump	
		Clearwater Dr.		Clearwater Sump	
		Sewage Sump		Clearwater Sump	
		Sewage Sump		Clearwater Sump	
Privy		Pet Waste Pit		Pit: Nonconforming Existing	
				Well	
				Pump	
				Tank	
				Subsurface Pumproom	
				Nonconforming Existing	
				Barn Gutter	
				Animal Barn Pen	
				Animal Yard	
				Silo With Pit	
				Glass Lined Storage Facility	
				Silo w/o Pit	
				Earthen Silage Storage Trench Or Pit	
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure	
				Subsurface Gasoline or Oil Tank	
				Waste Pond or Land Disposal Unit (Specify Type)	
				Other (Give Description)	
Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
5. DRILLHOLE					
Dia. (in.) From (ft.) To (ft.)		Kind From (ft.) To (ft.)			
10 Surface 20		Topsoil Surface 40			
20 150		Sand & Gravel 4 75			
		Sand 75 140			
		Gravel & Sand 140 150			
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly		From (ft.) To (ft.)			
6" New Standard Steel		Surface 150'			
2.45" Galv. I.C.					
ASTM A 53 Seamless					
Metals Stand					
8. GROUT OR OTHER SEALING MATERIAL					
Kind From (ft.) To (ft.)					
Drill Cuttings Surface 20					
11. MISCELLANEOUS DATA					
Yield Test: <u>12</u> Hrs. at <u>25</u> GPM		Well construction completed on <u>Oct 10</u> 1977			
Depth from surface to normal water level <u>18</u> Ft.		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above <input type="checkbox"/> below final grade			
Depth of water level when pumping <u>25</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Oct 11</u> 1977		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Lois Anne Thelander</u> Registered Well Driller		Complete Mail Address <u>245 East Ave Prairie du Sac, Wisc.</u>			

1. COUNTY <u>Frank</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Elgin, Ill.</u>	
2. LOCATION <u>1/4 Sec 24 T10N R6E</u>		3. NAME <u>Jim Rens</u>		AGENT AT TIME OF DRILLING CHECK (✓) ON	
OR - Grid or Street No. <u>101N</u> Street Name <u>101N</u>		ADDRESS <u>101N</u>		POST OFFICE <u>Elgin, Ill.</u>	
AND - If available subdivision name, lot & block No. <u>Grubers Grove</u>					
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building		Sanitary Bldg. Drain	
18 ft		C.I. 34 ft		Other	
San. Street Sewer		Other Sewers		Foundation Drain Connected to	
San. Storm C.I. Other		Sewer Clearwater Dr. Sewage Sump Clearwater Sump		Clearwater Sump Septic Tank Holding Tank	
75 ft		Sewage Absorption Unit		Seepage Pit Seepage Bed Seepage Trench	
85 ft		Privy		Pet Waste Pit	
Pit: Nonconforming Existing		Subsurface Pumproom		Barn Gutter	
Well Pump Tank		Nonconforming Existing		Animal Barn Pen Animal Yard Silo With Pit	
Glass Lined Storage Facility		Silo w/o Pit		Earthen Silage Storage Trench Or Pit	
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure	
Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)		Other (Give Description)	
5. Well is intended to supply water for: <u>Home</u>		9. FORMATIONS			
6. DRILLHOLE		Kind		From (ft.) To (ft.)	
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)		Topsoil		Surface 3	
10 Surface 20		Sand & Clay		3 30	
6 20 87		Sand		30 87	
7. CASING, LINER, CURBING AND SCREEN		Sand & Gravel		80 87	
Material, Weight, Specification & Method of Assembly		From (ft.) To (ft.)			
6" New Stone Block		Surface 84			
19.45 ft L.C.					
ASTMA 5.3 Sumetum Metal					
A 3 ft Johnson Stainless Screen 15 Slot					
Installed		84 87			
8. GROUT OR OTHER SEALING MATERIAL		10. TYPE OF DRILLING MACHINE USED			
Kind From (ft.) To (ft.)		<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with			
Drill Cuttings Surface 20		<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air			
		<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water			
11. MISCELLANEOUS DATA		Well construction completed on <u>July 7</u> 1978			
Yield Test: <u>15</u> Hrs. at <u>25</u> GPM		Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below			
Depth from surface to normal water level <u>40</u> Ft.		Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Depth of water level when pumping <u>40</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Water sample sent to <u>Madison</u> laboratory on <u>Aug 16</u>					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>Le Verne Uelsch</u> Registered Well Driller		Complete Mail Address <u>245 Park Ave Elgin, Ill.</u>			

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

93

1. County S AUK Town ☒ Village ☐ City ☐ SUMMITER RECEI
Check one and give name
2. Location LOT 13 GRUBBERS GROVE E 1/2 SE Sec 24 APR 18 1957
Name of street and number of premise or Section, Town and Range numbers
3. Owner ☒ or Agent ☐ ROBERT J. PRIERE ENVIRONMENTAL SANITATION
Name of individual, partnership or firm
4. Mail Address R#1 PRAIRIE DU SAC WISCONSIN
Complete address required
5. From well to nearest: Building 4 ft; sewer _____ ft; drain _____ ft; septic tank 60 ft;
dry well or filter bed _____ ft; abandoned well _____ ft.

6. Well is intended to supply water for: Home

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
2	0	76			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
2	metal gal pipe		

9. GROUT:

Kind	From (ft.)	To (ft.)

11. MISCELLANEOUS DATA:

Yield test: 2 Hrs. at 14 GPM.

Depth from surface to water-level: 26 ft.

Water-level when pumping: 26 ft.

Water sample was sent to the state laboratory at:

Madison on 4-17- 1957
City

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
sand no water	0	30
clay hard pan	30	40
no water	40	65
fine sand		
Water Bearing		
gravel water	65	76
Bearing		

Construction of the well was completed on:

4-15 1957

The well is terminated 18 inches

☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes ☒ No _____

Was the well sealed watertight upon completion?

Yes ☒ No _____

Signature J. Martinson
Registered Well Driller

W. S. DeLk W. S.
Complete Mail Address

Please do not write in space below

Rec'd _____ No _____

Ans'd _____

Interpretation _____

10 ml 10 ml 10 ml 10 ml 10 ml

Gas—24 hrs. _____

48 hrs. _____

Confirm _____

B. Coli _____

Examiner _____

NOTE:

White Copy - Division's Copy
Green Copy - Driller's Copy
Yellow Copy - Owner's Copy

94

1. COUNTY <u>Lane</u>		CHECK (✓) ONE: <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		Name <u>Nebraska</u>	
2. LOCATION <u>1/4 Sec 19</u> OR - Grid or Street No. / Street Name		Township <u>10 N</u> Range <u>7 E</u>		3. NAME <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> AGENT AT TIME OF DRILLING CHECK (✓) ON! <u>Lake Wes Boat Club</u> ADDRESS <u>RR.</u>	
AND - If available subdivision name, lot & block No.				POST OFFICE <u>Prairie du Sac</u>	
4. Distance in feet from well to nearest: (Record answer in appropriate block)		Building <u>50 ft</u>		Sanitary Bldg. Drain <u>60 ft</u>	
		Sanitary Bldg. Sewer <u>60 ft</u>		Floor Drain Connected To: <u>none</u>	
		Storm Bldg. Drain <u>none</u>		Storm Bldg. Sewer <u>none</u>	
Street Sewer		Other Sewers		Foundation Drain Connected to:	
San. Storm C.I. Other		Sewer Clearwater Dr.		Sewage Sump C.I. Other	
		Clearwater Sump		Clearwater Sump	
Privy		Pet Waste Pit		Sewage Absorption Unit	
Pit: Nonconforming Existing		Subsurface Pumproom		Seepage Pit	
Well Pump Tank		Nonconforming Existing		Seepage Bed	
				Seepage Trench	
Temporary Manure Stack		Watertight Liquid Manure Tank		Solid Manure Storage Structure	
		Subsurface Gasoline or Oil Tank		Waste Pond or Land Disposal Unit (Specify Type)	
				Other (Give Description)	
5. Well is intended to supply water for: <u>Boat Club</u>					
6. DRILLHOLE					
Dia. (in.) From (ft.) To (ft.) Dia. (in.) From (ft.) To (ft.)					
<u>10</u> Surface <u>20</u>					
<u>6</u> <u>20</u> <u>64</u>					
7. CASING, LINER, CURBING AND SCREEN					
Material, Weight, Specification & Method of Assembly From (ft.) To (ft.)					
<u>6" New Hard Bk Steel</u> Surface <u>64</u>					
<u>19.45 ft I & C</u>					
<u>ASTMA 53 Sumitomo</u>					
<u>Metals</u>					
8. GROUT OR OTHER SEALING MATERIAL					
Kind From (ft.) To (ft.)					
<u>Drill Cuttings</u> Surface <u>20</u>					
9. FORMATIONS					
Kind From (ft.) To (ft.)					
<u>Clay</u> Surface <u>10</u>					
<u>Sand & Gravel</u> <u>10</u> <u>60</u>					
<u>Gravel</u> <u>60</u> <u>64</u>					
10. TYPE OF DRILLING MACHINE USED					
<input checked="" type="checkbox"/> Cable Tool <input type="checkbox"/> Rotary-hammer w/drilling mud & air <input type="checkbox"/> Jetting with					
<input type="checkbox"/> Rotary-air w/drilling mud <input type="checkbox"/> Rotary-hammer & air <input type="checkbox"/> Air					
<input type="checkbox"/> Rotary-w/drilling mud <input type="checkbox"/> Reverse Rotary <input type="checkbox"/> Water					
11. MISCELLANEOUS DATA					
Yield Test: <u>15</u> Hrs. at <u>25</u> GPM					
Well construction completed on <u>July 4</u> 19 <u>78</u>					
Well is terminated <u>10</u> inches <input checked="" type="checkbox"/> above final grade <input type="checkbox"/> below					
Depth from surface to normal water level <u>18</u> Ft. Well disinfected upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Depth of water level when pumping <u>25</u> Ft. Stabilized <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Well sealed watertight upon completion <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Water sample sent to <u>Madison</u> laboratory on <u>July 5</u> 19 <u>78</u>					
Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, method of finishing the well, amount of cement used in grouting, blasting, etc., should be given on reverse side.					
Signature <u>L. Verne H. L. L.</u> Complete Mail Address <u>245 Park Ave Prairie du Sac</u>					

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

95

1. County Sauk Town ☒ Village ☐ City ☐ Sumpter
Check one and give name
2. Location Sec. 24 T 10 N R 6 E
Name of street and number of premise or Section, Town and Range numbers
3. Owner ☒ or Agent ☐ Paul Wilkinson
Name of individual, partnership or firm
4. Mail Address R.F.D. Prairie du Sac
Complete address required
5. From well to nearest: Building 4 ft; sewer ft; drain ft; septic tank 50 ft;
dry well or filter bed ft; abandoned well ft.
6. Well is intended to supply water for: Cottage

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
4	0	62			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
4	Steel	0	56
4	Screen	56	62

9. GROUT:

Kind	From (ft.)	To (ft.)

11. MISCELLANEOUS DATA:

Yield test: Hrs. at GPM.
Depth from surface to water-level: 10 ft.
Water-level when pumping: 10 ft.
Water sample was sent to the state laboratory at:
Madison on 7/25 1955
City

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
Sand	0	20
Clay	20	50
Sand & gravel	50	62
RECEIVED		
JAN 7 1957		
ENVIRONMENTAL SANITATION		

Construction of the well was completed on:

7/22 1955

The well is terminated 8 inches
☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes ☒ No ☐

Was the well sealed watertight upon completion?

Yes ☒ No ☐

Signature Jas. Reynolds & Son
Registered Well Driller

Portage, Wis.
Complete Mail Address

Please do not write in space below

Rec'd No.

Ans'd

Interpretation

10 ml 10 ml 10 ml 10 ml 10 ml

Gas—24 hrs.

48 hrs.

Confirm

B. Coli

Examiner

WELL CONSTRUCTOR'S REPORT

STATE OF WISCONSIN

DEPARTMENT OF RESOURCE DEVELOPMENT

96 W

1. COUNTY Shawano CHECK ONE ☒ Town ☐ Village ☐ City NAME Summit

2. LOCATION (Number and Street or 1/4 section, section, township and range. Also give subdivision name, lot and block numbers when available.)
Sec 24 T10N R6E

3. OWNER AT TIME OF DRILLING
Donald Gattskall

4. OWNER'S COMPLETE MAIL ADDRESS
429-7th St Prairie du Lac, Wis

5. Distance in feet from well to nearest: BUILDING SANITARY SEWER FLOOR DRAIN FOUNDATION DRAIN WASTE WATER DR
C.I. TILE C.I. TILE SEWER CONNECTED INDEPENDENT C.I. TILE
(Record answer in appropriate block) 7

CLEAR WATER DRAIN SEPTIC TANK PRIVY SEEPAGE PIT ABSORPTION FIELD BARN SILO ABANDONED WELL SINK HOLE
C.I. TILE 50 75

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for: Home

7. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>6</u>	<u>Surface</u>	<u>6.3</u>			

10. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Sand & Gravel</u>	<u>Surface</u>	<u>6.3</u>

8. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
<u>6</u>	<u>Stand B.C.L.</u> <u>11.45 LB</u>	<u>Surface</u>	<u>6.3</u>
<u>6 ft 15"</u>	<u>Slot</u>		
	<u>Johnson Stainless Steel</u>		
	<u>Screen</u>		

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
	<u>Surface</u>	

Well construction completed on Sept 25 1966

11. MISCELLANEOUS DATA

Yield test: 20 Hrs. at 15 GPM Well is terminated 14 inches ☒ above ☐ below final gravel

Depth from surface to normal water level 25 ft. Well disinfected upon completion ☒ Yes ☐ No

Depth to water level when pumping 25 ft. Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on: Dec 7 1966

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE LeVone Helach Registered Well Driller COMPLETE MAIL ADDRESS 245 Paul Ave Prairie du Lac

Please do not write in space below

COLIFORM TEST RESULT	GAS - 24 HRS.	GAS - 48 HRS.	CONFIRMED	REMARKS

WELL CONSTRUCTOR'S REPORT
FORM 3300-15

NOV 21 1973

NOTE

WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPYSTATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
Box 450
Madison, Wisconsin 53701

97

COUNTY <u>Creek</u>		CHECK ONE <input checked="" type="checkbox"/> Town <input type="checkbox"/> Village <input type="checkbox"/> City		NAME <u>Piscine du Lac</u>	
1. LOCATION - Section <u>20 1/4</u> Section <u>20 1/4</u> Township <u>35</u> Range <u>10N</u> <u>6E</u>		3. OWNER AT TIME OF DRILLING <u>Herman Ziegler</u>			
4. GRD or street no. <u>Water St.</u>		ADDRESS <u>Water St.</u>			
AND If available subdivision name, lot & block no.		POST OFFICE <u>Sault Ste. Marie, Wis.</u>			
1. Distance in feet from well to nearest: (Record answer in appropriate block)		BUILDING SANITARY SEWER FLOR. DRAIN C.I. TILE		FOUNDATION DRAIN C.I. TILE	
		<u>30 ft 50 ft</u>		<u>none</u>	
CLEAR WATER DRAIN C.I. TILE		SEPTIC TANK PRIVY		WASTE WATER DRAIN C.I. TILE	
<u>75 ft</u>		<u>75</u>		<u>70 ft</u>	
BEEHIVE PIT		ABSORPTION FIELD		BARN	
<u>100</u>					
SILO		ABANDONED WELL		SINK HOLE	
OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)					

2. Well is intended to supply water for:

Home

5. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
10	Surface	10			
6	10	194			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
10	19.18" per ft.	Surface	189
	5 ft Johnson Stewles		
	15 ft Screen Installed		

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
Drill Cuttings	Surface	10

9. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand Gravel Clay	Surface	75
Sand	75	140
Sand Gravel	140	185
Gravel	185	194

11. MISCELLANEOUS DATA

Yield test:	15	Hrs. at	25	GPM
Depth from surface to normal water level	70	ft.		
Depth to water level when pumping	70	ft.		

10. TYPE OF DRILLING MACHINE USED

<input checked="" type="checkbox"/> Cable Tool	<input type="checkbox"/> Direct Rotary	<input type="checkbox"/> Reverse Rotary
<input type="checkbox"/> Rotary - air w drilling mud	<input type="checkbox"/> Rotary - hammer with drilling mud & air	<input type="checkbox"/> Jetting with <input type="checkbox"/> Air <input type="checkbox"/> Water

Well construction completed on Oct 10 1973Well is terminated 10 inches ☒ above ☐ below final gradeWell disinfected upon completion ☒ Yes ☐ NoWell sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to

Madison

laboratory on:

Oct 11 1973

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, use type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side

SIGNATURE <u>L. J. H. H. H. H.</u> Registered Well Driller		COMPLETE MAIL ADDRESS <u>345 Fair Ave Piscine du Lac</u>	
Please do not write in space below			
COLIFORM TEST RESULT	GAS 24 HRS.	GAS 48 HRS.	CONFIRMED
		REMARKS	

WELL CONSTRUCTOR'S REPORT

STATE OF WISCONSIN
DEPARTMENT OF RESOURCE DEVELOPMENT

W.

COUNTY Laurens CHECK ONE ☒ Town ☐ Village ☐ City NAME Prairie du Sac

LOCATION (Number and burst or 1/4 section, section, township and range. Also give subdivision name for all block numbers when available.)
44 1/4 Sec 35 T10N R6E

OWNER AT TIME OF DRILLING Curt Mueller

OWNER'S COMPLETE MAIL ADDRESS Prairie du Sac, Wis

3. Distance in feet from well to nearest:
(Record answer in appropriate block)

BUILDING	C.I.	CANITARY	C.I.	SEWER	C.I.	FOUNDATION DRAIN	WASTE WATER DRAIN
75ft		100ft		none		125ft	

CLEAR WATER DRAIN C.I. 125ft TILE 100 SEPTIC TANK 125 PRIVY 125 SEEPAGE PIT 125 ABSORPTION FIELD 125 BARN 125 SILO 125 ABANDONED WELL 125 WINK MIRE

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

6. Well is intended to supply water for:

Muskegon Chemical Co.

7. DRILLHOLE

Di. (in.)	From (ft.)	To (ft.)	Di. (in.)	From (ft.)	To (ft.)
6	Surface	247			

8. CASING, LINER, CURBING, AND SCREEN

Di. (in.)	Kind and Weight	From (ft.)	To (ft.)
1"	New Star Blk.	Surface	209
	Steel Jo C		
	19.45 ft		

10. FORMATIONS

Kind	From (ft.)	To (ft.)
Sand	Surface	180
Sand Rock	180	235
Blue loam Stone	235	241

9. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
	Surface	

11. MISCELLANEOUS DATA

Yield test: <u>20</u>	Hrs. at <u>20</u> GPM
Depth from surface to normal water level <u>80</u> ft.	
Depth to water level when pumping <u>80</u> ft.	

Water sample sent to

Madison

laboratory on

Aug 7 1964

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to near wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, or surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE

LaVerne M. Misch

Registered Well Driller

COMPLETE MAIL ADDRESS

245 First Ave. Prairie du Sac

Please do not write in space below

CALIFORNIA TEST RESULT

GAS - 24 HRS.

GAS - 4 HRS.

CONTAMINATED

REMARKS

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

RECE 99
SEP 26 1949
BUREAU
SAN. ENG.

1. County Sauk { Town Prairie Du Sac
Village
City
2. Location 1 mi N. of the village of "
3. Owner or Agent Pete Heber ✓ S 1/2 S 1/2 Sec 24 T10N R6E
4. Address R.R. 1 Prairie Du Sac
5. From well to nearest: Building 10 ft; sewer _____ ft; drain _____ ft; septic tank _____ ft;
dry well or filter bed 150 ft; abandoned well 300 ft.
6. Well is intended to supply water for: Farm

7. DRILLHOLE OR EXCAVATION:

Dia. (in.)	From (ft.)	To (ft.)
6	0	300
5	300	321

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind	From (ft.)	To (ft.)
6	Std. Black Pipe	0	281
5	Line Pipe	301	321

9. GROUT:

Kind	From (ft.)	To (ft.)
None		

10. FORMATIONS:

Kind	Thick-ness (ft.)	Total Depth (ft.)
Top Soil	40	40
Quick sand	220	260
Sept Sandstone (caving)	21	281
Sandstone	20	301
Very Soft Limestone	20	321

A 5" liner set from 301-321

11. MISCELLANEOUS DATA:

Yield test: _____ Hrs. at _____ GPM.

Depth from surface to water: 90 ft.

Water-level when pumping: _____ ft.

Water sample sent to laboratory at _____ on _____ 19____

Construction of the well was completed on July 19 1949.

The well is terminated 14 inches (above) (below) the permanent grade.

Was the well disinfected upon completion? Yes _____ No X

Was the well sealed watertight upon completion? Yes _____ No X

Signature Louis P. O'Connor Spring Green
Registered Well Driller Complete Mail Address

WELL CONSTRUCTOR'S REPORT
FORM: 3300-15

MAR 30 1976

NOTE
WHITE COPY - DIVISION'S COPY
GREEN COPY - DRILLER'S COPY
YELLOW COPY - OWNER'S COPY

STATE OF WISCO
DEPARTMENT OF NATURA
Box 450
Madison, Wisconsin

100

1. COUNTY Sauk CHECK ONE ☒ Town ☐ Village ☐ City NAME Prairie du Sac

2. LOCATION - (N&S) Section 25 Township 10N Range 6E 3. OWNER AT TIME OF DRILLING Emma Gruber (Gruber)

OR - Grid or street no. Street name ADDRESS Rte 1

AND - If available subdivision name, lot & block no. POST OFFICE Prairie du Sac

4. Distance in feet from well to nearest:

BUILDING	SANITARY SEWER	FLOOR DRAIN	FOUNDATION DRAIN	WASTE WATER DRAIN
C. I.	C. I.	C. I.	SEWER CONNECTED	C. I.
<u>18 ft</u>	<u>25 ft</u>	<u>20 ft</u>	<u>none</u>	<u>30 ft</u>

(Record answer in appropriate block)

CLEAR WATER DRAIN	SEPTIC TANK	PRIVY	SEEPAGE PIT	ABSORPTION FIELD	BARN	SILLO	ABANDONED WELL	SINK HOLE
C. I.	C. I.							
<u>25 ft</u>	<u>35 ft</u>		<u>55 ft</u>		<u>100 ft</u>		<u>15 ft</u>	<u>Sandpoint</u>

OTHER POLLUTION SOURCES (Give description such as dump, quarry, drainage well, stream, pond, lake, etc.)

5. Well is intended to supply water for: Home & Farm

6. DRILLHOLE

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
<u>10</u>	<u>Surface</u>	<u>10</u>			
<u>6</u>	<u>10</u>	<u>240</u>			

7. CASING, LINER, CURBING, AND SCREEN

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
<u>6"</u>	<u>New Standard</u>	<u>Surface</u>	<u>222</u>
	<u>Steel T & C. 19.45 ft</u>		
	<u>ASTM A53</u>		

9. FORMATIONS

Kind	From (ft.)	To (ft.)
<u>Topsoil</u>	<u>Surface</u>	<u>4</u>
<u>Sand</u>	<u>4</u>	<u>75</u>
<u>Sand Gravel</u>	<u>75</u>	<u>140</u>
<u>Sand</u>	<u>140</u>	<u>170</u>
<u>Sand Rock</u>	<u>170</u>	<u>24</u>

8. GROUT OR OTHER SEALING MATERIAL

Kind	From (ft.)	To (ft.)
<u>Drill Cuttings</u>	<u>Surface</u>	<u>10</u>

10. TYPE OF DRILLING MACHINE USED

☒ Cable Tool ☐ Direct Rotary ☐ Reverse Rotary

☐ Rotary - air w/drilling mud ☐ Rotary - hammer with drilling mud & air ☐ Jetting with Air ☐ Wat

11. MISCELLANEOUS DATA

Yield test: 15 Hrs. at 25 GPM

Depth from surface to normal water level 92 ft.

Depth to water level when pumping 92 ft.

Well construction completed on Aug 23 19 75

Well is terminated 10 inches ☒ above ☐ below final gra

Well disinfected upon completion ☒ Yes ☐ No

Well sealed watertight upon completion ☒ Yes ☐ No

Water sample sent to Madison laboratory on: Aug 25 19 75

Your opinion concerning other pollution hazards, information concerning difficulties encountered, and data relating to nearby wells, screens, seals, type of casing joints, method of finishing the well, amount of cement used in grouting, blasting, sub-surface pumprooms, access pits, etc., should be given on reverse side.

SIGNATURE L. Verne Shelsch Registered Well Driller COMPLETE MAIL ADDRESS 245 Park Ave Prairie du Sac

COLIFORM TEST RESULT GAS - 24 HRS. GAS - 48 HRS. CONFIRMED REMARKS

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH

See Instructions on Reverse Side

1. County SAAK (Town ☐ Village ☐ City ☐ PRairie Du Sac Check one and give name.
2. Location Sec 55 T9S R10E
Name of street and number of premises or section, town and range numbers
3. Owner ☒ or Agent ☐ JOHN McELLY
Name of individual, partnership or firm
4. Mail Address P.O. PRAIRIE DU SAC
Complete address required
5. From well to nearest: Building 50 ft; sewer ft; drain ft; septic tank 100 ft; 10 dry well or filter bed ft; abandoned well ft.

6. Well is intended to supply water for: FARM

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
4	0	141			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
4	Steel	0	136
4	SCREEN	136	141

9. GROUT:

Kind	From (ft.)	To (ft.)
Portland	65	45

11. MISCELLANEOUS DATA:

Yield test: 4 Hrs. at 8 GPM

Depth from surface to water-level: 60 ft.

Water-level when pumping: 60 ft.

Water sample was sent to the state laboratory at:

MADISON on 8/27 1958
City

Signature

John McElly
Registered Well Driller

Please do not write in space below

Complete Mail Address

Rec'd. No.

Ans'd

Interpretation

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
OPEN WELL	0	65
SAND	65	136
SAND & GRAVEL	136	141

OPEN WELL
FILL RECEIVED
CLAY
AUG 31 1958

ENVIRONMENTAL
SANITATION

Construction of the well was completed on:

8/28 1958

The well is terminated 10 inches above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes No

Was the well sealed watertight upon completion?

Yes No

10 ml 10 ml 10 ml 10 ml 10 ml

Gas—24 hrs.

48 hrs.

Confirm

B. Cell

Remarks

Rucker Form

102

WELL CONSTRUCTOR'S REPORT TO WISCONSIN STATE BOARD OF HEALTH
See Instructions on Reverse Side

1. County Sauk (Town ☒ Village ☐ City ☐ Prairie Du Sac
Check one and give name.
2. Location Sec 35 T. 11 N. R. 6 E.
Name of street and number of premises or Section, Town and Range numbers
3. Owner ☐ or Agent ☐ John H. Hensel (Carl Rucker Form)
Name of individual, partnership or firm
4. Mail Address P. Prairie Du Sac
Complete address required
5. From well to nearest: Building 6 ft; sewer ft; drain ft; septic tank 35 ft;
dry well or filter bed 60 ft; abandoned well 100 ft.
6. Well is intended to supply water for: For Farm

7. DRILLHOLE:

Dia. (in.)	From (ft.)	To (ft.)	Dia. (in.)	From (ft.)	To (ft.)
6	0	196			

8. CASING AND LINER PIPE OR CURBING:

Dia. (in.)	Kind and Weight	From (ft.)	To (ft.)
6	Std B.I.F.	0	196

9. GROUT:

Kind	From (ft.)	To (ft.)
<u>None</u>		

11. MISCELLANEOUS DATA:

Yield test: 2 Hrs. at 27 PM.
Depth from surface to water-level: 52
Water-level when pumping: 20 ft.
Water sample was sent to the state laboratory at:
Madison on Oct. 14 1956
City

10. FORMATIONS:

Kind	From (ft.)	To (ft.)
<u>Sand</u>	<u>0</u>	<u>110</u>
<u>Sand & Fine Gravel</u>	<u>110</u>	<u>130</u>
<u>Sand</u>	<u>130</u>	<u>190</u>
<u>Gravel</u>	<u>190</u>	<u>196</u>

RECEIVED

OCT 19 1955

ENVIRONMENTAL
SANITATION

Construction of the well was completed on:

Oct. 13 1956

The well is terminated 26 inches
☒ above, below ☐ the permanent ground surface.

Was the well disinfected upon completion?

Yes X No

Was the well sealed watertight upon completion?

Yes X No

Signature

Alex O'Connor
Registered Well Driller

Spring Green
Complete Mail Address

Please do not write in space below

Ref'd No.

Anal'd

Interpretation

10 ml 10 ml 10 ml 10 ml 10 ml

Gas—24 hrs.

48 hrs.

Confirm

B. Cell

Franchiser

WELL NO. 1, JACK CITY, WIS.

SW 1/4 sec. 12, T. 9 N., R. 6 E. Elevation 751

Mead and Hunt, Engineers Varner Well Drilling Co., Contractors, 19

Samples examined by F. T. Thwaites, Nos. 135704-135802.

550' W. of Well No. 1

D R I F T	0-25	25		Sand and gravel, no samples		24" pipe cement 40
	25-35	10		Gravel, fine to coarse, sandy		
	35-115	80		Sand, medium to coarse, light gray, glacial		16" pipe
28	115-128	13		Sand, medium to very coarse, some pebbles		128
	128-145	17		Sandstone, fine, yel-gray to gray, dolomitic		
	145-175	30		Shale, blue-gray, dolomitic		15" hole
	175-180	5		Dolomite, sandy, silty, light gray		
	180-250	70		Shale, gray, dolomitic		
	250-265	15		Siltstone, sandy, very dolomitic, gray		257
	265-290	25		Sandstone, fine to medium, light gray, dolomitic		
2	290-300	10		Siltstone, light gray, dolomitic		
	300-335	35		Sandstone, fine to medium, light gray, dolomitic		12 1/2" hole
	335-360	25		Sandstone, medium to coarse, light gray, dolomitic		
	360-385	25		Sandstone, fine to medium, light gray		
	385-440	55		Sandstone, very fine, silty, light gray, dolomitic		
	440-455	15		Sandstone, medium, light gray		
	455-465	10		Sandstone, medium to coarse, light gray		
	465-515	50		Sandstone, fine, light gray		
2	515-530	15		Sandstone, no samples		
	530-532	2		Granite, light gray		

formations: Drift (glacial outwash); Eau Claire; Mt. Simon; pre-Cambrian

at ral flow; no pump test Closed in head = +51.8' Flow at +5 after 16 hours = 308 g.p.m.
Specific capacity = 6.55 g.p.m./ft.

APPENDIX E
BOREHOLE GEOPHYSICAL SURVEY

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APPENDIX E: BOREHOLE GEOPHYSICAL SURVEY

Appendix E presents the results of a borehole geophysical logging program conducted at Badger Army Ammunition Plant by COLOG, Inc. of Golden, Colorado for the RI program. This appendix is organized to present detailed descriptions of the borehole geophysical logging methods; field operation procedures; quality assurance, log processing, and log interpretation principles; and a summary of key features noted on individual boreholes. Finally, the geophysical logs are presented for each boring evaluated.

E.1 TECHNIQUES

The five geophysical techniques used at BAAP are natural gamma, non-focused gamma density, dual gamma-gamma (G-G) density, neutron, and induction. These techniques are described in the following paragraphs.

E.1.1 Natural Gamma

The gamma measurement detects gamma ray radiation that occurs naturally in all rocks. This log, recorded in counts per seconds, detects relative changes in natural radiation and is commonly used for lithologic identification and stratigraphic correlation. Naturally occurring radiation comes from three principal areas: potassium 40, which occurs with all potassium minerals; thorium 232, which is associated with biotite, sphene, and zircon type minerals; and uranium 238. The typical radial depth of investigation from the center of the well of the natural gamma probe is approximately 10 to 12 inches. In general, the gamma radiation level was low in the BAAP wells, indicating a low percentage of radioactive clay minerals in the subsurface layers penetrated by the boreholes.

E.1.2 Non-focused Gamma-Gamma Density

The 4 pi G-G density log is a qualitative measurement of density made using a non-focused probe with a source-to-detector spacing of 20 inches and a radioactive source of 100 milluries of cesium 137. This measurement responds to changes in the electron density immediately surrounding the probe in all directions. It is affected by well construction, drilling disturbances, and formation changes. It is extremely sensitive to fluid in the well and is an excellent indicator of the water level in a casing. This log provides information on changes in formation parameters, such as porosity, and commonly reflects well construction and completion features. Because this tool is not internally focused, it should

APPENDIX E

not be as affected by localized channeling or other conditions in one direction from the well bore as a focused density measurement may be.

E.1.3 Dual Gamma-Gamma Density

The dual G-G density measurement is a quantitative density measurement using a focused probe. This probe has two receivers (radiation detectors) at approximately 8 and 14 inches from a radioactive source (100 milli-curies of cesium 137). This probe is decentralized in the well with a single-arm caliper, and consequently senses the formation in one direction from the well or borehole. The near receiver has a shallower depth of investigation than the far receiver and should be more affected by construction and completion features of the well. This logging technique provided some quantitative densities relating to the completion of the well and to the formation.

E.1.4 Neutron

The neutron log consists of a 1-curie americium 241 (beryllium activated) radioactive source and a thermal neutron detector (He+3). The source-to-detector spacing is approximately 14 inches and the log is non-focused. Thermal neutrons are absorbed primarily by hydrogen, chlorine, and boron with water and the PVC casing being the primary sources of these elements in the BAAP boreholes. Since the PVC casing is nearly uniform in thickness, the changes in the neutron log should be almost entirely related to changes in water content or saturation in and around the well borehole. The neutron log provided additional information on lithology by showing low response counts per second opposite clay layers (higher porosity) in contrast to higher count rates opposite sands and gravels (lower porosity). Well completion may also affect the neutron log response if the backfill or grout varies appreciably in diameter.

E.1.5 Induction

The induction measurements were collected using a Geonics EM39 logging system and included a quadrature component of the induced electromagnetic field. Measurements can be converted to bulk electrical conductivity, and an in-phase component converted to magnetic susceptibility. The tool uses a transmitter coil, a receiver coil, and a focusing coil. It operates at 39.2 KHz and can penetrate through PVC casing into the vadose and saturated zone. The focusing coil causes measurement sensitivity to peak at the distance of about 12 inches from the borehole axis. Therefore, significant borehole effects should not occur when used in boreholes that range from 2 to 8 (or 9) inches in diameter. Due to the nature

of the conductivity measurement, it is not possible to accurately resolve resistivity in environments greater than about 200 ohm-m.

This tool measures a bulk conductivity that is the result of electrical properties of both the geologic materials and the resistant groundwater. In general, conductivity will increase as clay content, fluid content, and the ionic strength of water individually increase. Because of these relationships, it may be difficult to identify contaminated groundwater in sediments that contain variable amounts of clay. In these environments, comparison of the conductivity log to the natural gamma log may enable discrimination between clayey sediments and zones of contaminated groundwater. However, it is important to note that very small variations in clay content may result in large changes in conductivity. These small variations in clay content may exceed the resolution of the gamma log.

E.2 FIELD OPERATION PROCEDURES

The wells were logged at a maximum rate of 20 feet per minute, and the digital sample interval was set at 0.5 feet. Analog records were collected simultaneously with the digital records, but were used only as assurance of correct tool performance. The digital data were processed for the final log generation and interpretation.

Digital data processing consisted of correcting depth offsets of the different probe configurations, filtering of the radioactive measurements, converting conductivity in ms/m to ohm-m, combining individual probe runs to a single file, and eliminating the induction data above the bottom of the steel surface casing.

All probes and the logging cable were steam cleaned between probe runs to minimize cross-contamination potential from the logging process.

E.3 QUALITY ASSURANCE

All of the radioactive logging probes and modules conformed to U.S. Bureau of Mines (USBM) calibration standards and were validated in test holes at the Denver Federal Center prior to mobilizing on this program. All of the probes performed within the manufacturers specifications in these wells. The EM-39 was checked both in Colog's office and in the field with a Q-coil, a specialized calibration standard, and performed within the manufacturer's specifications.

APPENDIX E

The same equipment was utilized for logging all wells. All data were recorded in the simplest form and then corrected, filtered, and processed. Additionally, an audit trail (file) was automatically made that showed the changes made to the raw data. Logging trip reports and daily logs were filled out for each hole and each day in the field. These records document all equipment serial numbers, when they were used, borehole conditions, weather conditions, logging speed, sample interval, engineer(s), witness(es), and digital file names.

The raw analog and digital data were checked for correct tool operation as each borehole was being logged. Field prints of the digital data were made on-site, prior to moving the equipment off the borehole, and checked for inconsistencies. All of the digital data were backed up onto a secondary storage media prior to moving the equipment off the borehole. Paper log prints of the processed well logs were made in the field and copies of the digital data were provided to Jordan prior to demobilization from BAAP.

Depth values were all referenced to the top of the Schedule 80 PVC casing of each well. The distance to ground level from this casing top is noted on the log header. Potential depth errors, which are the difference (in feet), when the probe was rezeroed at the casing top of each well after completion of the logging run, were recorded for each probe. The maximum difference was 0.9 feet in several of the deeper Propellant Burning Ground wells and was much less than this for most of the other wells.

The first well (DBN-89-04B) and final well (SPN-89-05B) were logged twice with all probes. These logs were checked for repeatability prior to demobilization from each of these wells. Correlation between the different logs and similar response in all of the boreholes also served to check the accuracy and consistency of the log data.

E.4 LOG PROCESSING

Processing report forms were filled out as the raw data were processed. The forms may be used to reconstruct the processing steps including filters used, sample intervals, trace cutoff depths at fluid level, any merge points, and any log calculations.

All of the log data were recorded in the simplest form and then corrected, filtered, and processed. Additionally, an audit trail (file) was created that shows all changes made to the raw data.

The initial processing step for all of the raw data files was to remove any duplicate depths and any obviously bad data. The next step was to select a constant sample interval (0.5 ft.),

filter the data as necessary to remove random noise, depth align the log traces, and convert the log values to numbers based on instrument calibration. Filtering was accomplished by applying an appropriate equation systematically throughout the entire depth interval of a log to smooth-out statistically non-representative peaks and lows, particularly characteristic of natural gamma radiation logs.

Additionally, many of the log values were recorded in several different formats, and these duplicate traces were deleted from the final files after checking for consistency.

The dual receiver gamma-gamma density log was compensated in the standard manner, but the compensated log did not appear to be correct below water level. The logs were then replotted separately as individual apparent densities for the short-spaced detectors (SSD) and the long-spaced detectors (LSD). This presentation was determined to be more useful for interpretation.

As a final processing step, the separate log files from each run were merged into one master data file, reconciling the individual logs to a common depth scale. These log composites facilitated interpretation by presenting all of the log data from each well at a vertical scale of one inch equals 15 feet where they were compared and evaluated together.

E.5 LOG INTERPRETATION PRINCIPLES

Interpretation of geophysical logs was accomplished by noting the various unit values of baseline response on each log and by assessing the continuity of anomalies from one log to another. The geophysical logs were then judged for formation representativeness based upon each probe's depth of investigation and apparent well construction effects.

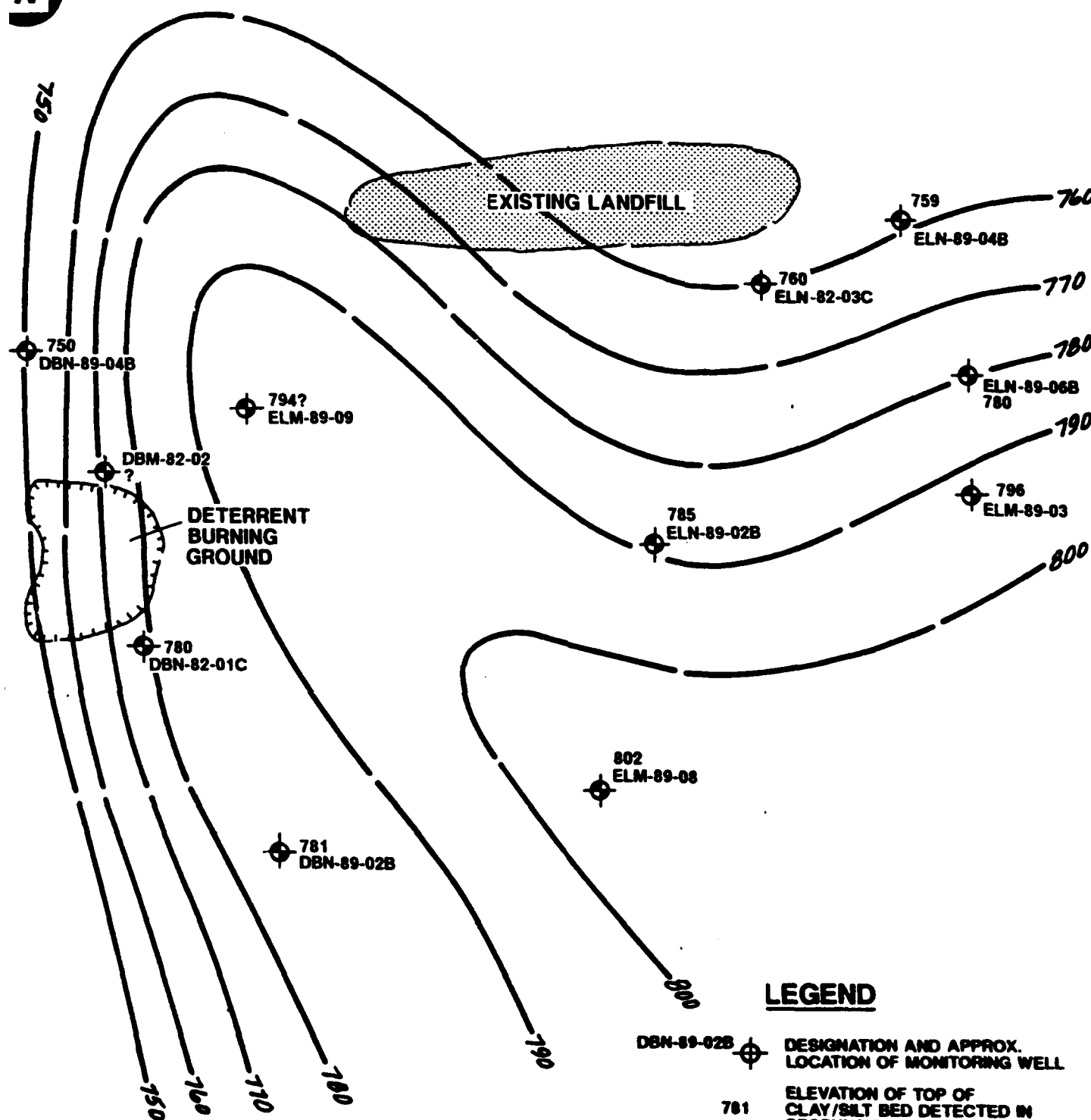
Well construction and uniformity or competency of the borehole annulus and grout backfill may significantly affect radioactive logs, especially the SSD log. The induction log is generally not greatly affected by the well itself. Realistically, most of the log anomalies would be attributable to geologic or groundwater changes in the formation, if well construction features were uniform along the entire borehole.

E.6 SUMMARY OF LOGGING RESULTS

The following summaries were prepared by Colog in order to identify key features noted in each geophysical log. This is followed by a discussion of stratigraphic correlation between




APPENDIX E

wells in the Deterrent Burning Ground and Existing Landfill area. This includes an interpretation of the surface elevation of the clay/silt bed (Figure E-1). Finally, the geophysical logs for each individual well are presented.



SOURCE: COLOG, INC., 1989 REPORT ON
GEOPHYSICAL LOGGING AT BAAP.

LEGEND

- DBN-89-02B  DESIGNATION AND APPROX.
LOCATION OF MONITORING WELL
- 781  ELEVATION OF TOP OF
CLAY/SILT BED DETECTED IN
GEOPHYSICAL LOG
- 760  CONTOUR LINE INDICATING
ELEVATION OF CLAY/SILT BED

APPROX. SCALE



FIGURE E-1
TOP OF CLAY/SILT BED
DETERRENT BURNING GROUND/
EXISTING LANDFILL
BADGER ARMY AMMUNITION PLANT

ECJORDANCO

SUMMARY OF KEY FEATURES ON INDIVIDUAL HOLES

Abbreviations :

Fluid Level - F.L.
Bentonite Seal - Seal
Concrete cap - Conc. Cap
Clay/Silt Bed - CSB

Gravel or Sand Pack - G.P.
Conductive zone - Cond.
Special Notes - S.N.

Deterrent Burning Ground

Well DBN-82-01C

F.L. = 128'; G.P. = 151'-TD and 120-130'; seal 130-151';
Conc. Cap 17-25'; Voids in Grout = 4-5' & 14-17'; CSB =
124-142'; S.N. = Cond. = 120-142' of which 120-124' may be
contaminates upon CSB. The upper gravel pack may be
partially to heavily saturated even though it is above F.L.
This is based upon similar apparent LSD density with the
lower saturated G.P. and neutron log anomalies.

Well DBN-89-04B

F.L. = 141'; G.P. = 177'-TD; Seal 173-177'; Voids in Grout =
118-124'; CSB = 163-174'; Cond. = 135-162' may be conductive
plume on top of CSB; S.N. = LSD of CSB = 2.0 gm/cc & LSD of
GP = 2.0 gm/cc.

Well DBM-82-02

F.L. = 135'; G.P. = 123'-TD; Seal 112-123'; Conc. Cap 18-
24'; Void in Grout = near surf.; no CSB noted; Cond. FL-TD.

Well DBN-89-02B

F.L. = 107'; G.P. = 139'-TD; Seal = 130-139'; No voids in
Grout detected; CSB = 104-109' & 134-138'; possibly CSB 39-
44' & 62-78'; S.N. = Gamma ray is significantly higher in
this well overall than in other wells by 30% or more. No
well construction diagram available.

Existing Landfill Area

ELN-89-02B

F.L. = 142'; G.P. = 157'-TD; seal not obvious may be poor
at 147-155' & 156-157'; voids in grout = 65-80' & 125-135';
Fine-grained "perched moisture" = 94-102' which correlates
with 98-110' in well ELN-89-06B; Fine-grained "perched
moisture" also from 40-50'; more dense = 37-42', 50-58', and
103-114'.

ELN-89-04B

F.L. = 149'; G.P. = 189'-TD; Seal 186-189'; voids in grout 70-80' (note probable channeling of cement shown as difference between 4 pi and LSD responses) & 125-137'; CSB = 48-53', 169-173', 178-184', & 193-195'; more dense 35-54', 84-98', 108-109', & 117-120'; Cond. = 12-18', 27-33', and 135-188' increasing with depth. The upper two conductive zones may be "fine-grained perched moisture" or related to contamination.

ELM-09-03

F.L. = 138'; G.P. = 115-TD and is saturated below F.L.; Seal = 110-115 & ?117-120'; no large air voids in grout; CSB = 120-124'-?138'; possible CSB = 100-110' w/ slight increase in neutron & 32-46' w/ decrease in neutron cps and increase in LSD; slightly cond. 28-50' ? silty or contaminates?

ELN-89-06B

F.L. = 130'; G.P. = 172'-TD; Seal = 157-172'; voids in grout = 23-52', 69-82', & 128-129'; CSB = X130-155'; Fine-grained "perched moisture" = 98-110' (which correlates w/ similar zone form 94-110' in ELN-89-02B); more dense 112-128'; cond. = 153-159'?

ELN-82-03C

F.L. = 148'; G.P. = 150'-TD; seal not obvious may be 130-140'?; no large air filled voids detected in grout; CSB = 160-164'; Gamma ray increase 164'-TD; more dense 80-110' (LSD is greater than 1.7 gm/cc); Cond. 143-164' which may indicate contaminates perched on CSB.

ELN-82-02C

F.L. = 138'; G.P. = 147'-TD; Seal = 130-147'; Small void or channel in grout may occur 14-17'; CSB = 72-78', 83-87'; Cond. 133-TD ?contaminates; more dense per LSD 60-110'.

ELM-89-08

F.L. = 127'; G.P. = 125'-TD; seal 118-125'; void in grout 8-29'; CSB = 105-108' & 117-120'? which may be due to bentonite in seal; silty 108-117' the gamma ray is not consistent with boring log which indicates cobbles in this area which may be supported by the neutron log.

ELN-89-09

No well const. diagram was available for this well; F.L. = 140'; G.P. = 140'-TD and is saturated; seal is not obvious; void in grout surf-25'; CSB = 128-132'; Cond. 122-130' possible contaminates on CSB & cond. 137'-TD with a low gamma ray?; more dense 30-55'.

Propellent Burning Ground

PBN-89-10D

F.L. = 111'; G.P. = 199-212' and fill 212-TD?; seal is not obvious from log responses ? 192-199'; Void in grout 13-40' & 107-110'; silty 80-112? from GR; fine-grained "perched moisture" 32-45'; Cond. = 109-170' and 187-202' which are characterized as low neutron cps and low gamma cps which may be very fine sand w/ no clay or silt?; more dense 55-71', 78-83', 87-91', 93-99', 154-157', 167-190', & 199-212'; No obvious correlation between the boring sample description log and the well logs.

PBN-89-01D

F.L. = 102'; G.P. = 119'-TD; Seal is not obvious; CSB = 68-82' characterized by low neutron, conductive, high gamma, and low apparent density; well is overall conductive with 190-215' being more conductive; may be gravels at 167-188'; no obvious voids in grout; there is no obvious correlation between the boring sample description log and the well logs.

PBN-89-04C

F.L. = 90'; G.P. = 168-TD?; seal is not indicated from logs, but seal is suppose to be located in an apparent gravel zone; void in grout = 37-50'; fine-grained perched moisture = 19-30' & 65-71'; more dense from 140-169'; overall this well has a good correlation with the boring log description and the induction conductivities, e.g. 71-88' = gravel & low cond., 122-139 = fn-med. sand w/ higher cond., 139-153' = gravel w/ low cond.

PBN-89-03C

F.L. = 75'; G.P. = 140'-TD; seal = 137-140'; CSB = 133-145'; More dense 28-65' & 80-125'; cond. = 0-7' & 16-25'; there is a good correlation between apparent lithology and the induction log, eg. 98-101 = gravel, 139-TD = gravel, both with very low apparent conductivity.

PBN-89-02C

F.L. = 126'; G.P. = 170-TD; Seal 164-168' note construction diagram indicates seal at 175-182'; gamma ray from 88-125' correlates with well PBN-89-03C from 40-72'; Cond. above 17', 126-175' with 148-153 and 160-170 very high which may be contaminates; gravel indicated from induction at 100-120'.

PBN-89-11

Boring log describes this well as an auger well versus reverse air for the other wells; F.L. = 107'; G.P. = 106-TD & 87-96' which appear saturated, 96-107' may be dry; seal = 75-80'? neutron and density logs suggests that the seal maybe dry or only partially hydrated; CSB = 75-83'; fine-grained perched moisture = 57-78', near surface conductive from surf. - 16'; Void in grout 48-58'; more dense form 20-27' & 87-95'.

PBN-89-12B

F.L. = 89'; G.P. 129'-TD; Seal = 112-129'; CSB = 52-62' & 78-88' w/ high LSD; no obvious voids in grout; Cond. 100-130'; more dense above 15', 53-63', & 78-87'.

PBN-82-03C

F.L. = 87'; G.P. = 101'-TD; Seal 65-101'; Second G.P. = 53-65'; void in grout = 10-15', there are no cond. zones; CSB = 54-85'; more dense 18-28'.

PBN-82-05C

F.L. = 105'; G.P. = 103'-TD; seal is not apparent from log response; void in grout 7-9' & partial void 87-104'; no conductive zones; more dense 20-45' & 73-80'.

PBN-82-01C

F.L. = 108', G.P. = 108'-TD; seal appears good from 88-101' and poor from 68-88' & 101-107'; no conductive zones; CSB = 77-100' more dense from 9-11' & 125-128'.

PBM-89-09

F.L. = 107'; G.P. = 107-TD saturated and 104-107' dry; no apparent seal; CSB = 87-95'; fine-grained perched moisture = 43-46' & 77-83', cond. 12-18' may be related to near surface moisture; more dense 16-20', 42-45', 52-64' 70-77' 82-105'.

Landfill No. 1

LON-89-02B

F.L. = 147'; G.P. = 174'-TD; Seal? possibly 152-163 & 163-174' as opposed to construction diagram which indicated 177-183'; CSB = 65-75' ? 118-130' & 140-150'; Cond. = 143-188' which may be contaminates; no obvious air filled voids in grout; more dense 23-66', 89-91', 107-176', & 147-150'.

LOM-89-01

F.L. = 142'; G.P. = 142'-TD which is saturated and 130-142' which is dry; Seal may not be hydrated at 121-126' based on high apparent densities or 125-130 based upon gamma cps increase; CSB = 120-130' silty 112-120'; Cond. 140'-TD., no obvious voids in grout.

Settling Ponds

SPN-89-04C

F.L. = 38'; G.P. = 100'-TD; Seal 94-97' ? 97-100 seal/sand mix; CSB = 80-90' w/ high density 81-85'; very cond. 60-99'; ? silty 24-33'; more dense 13-19' & 23-27'; ? gravel 43-49'; overall conductivity is higher indicating finer grained material than wells at north end of project area.

SPN-89-05B

F.L. = 40'; G.P. = 71'-TD; Seal is not obvious may be 65-71'; no obvious air filled voids in grout; CSB 43-46'?; Cond. = 52-62' and 63-70 w/ very low neutron cps and LSD = 1.5 gm/cc maybe very fine grained material?

SPN-89-03C

F.L. = 52'; G.P. = 122-128'; Seal = 115-122'?; void in grout = 43-47', no obvious CSB; Cond. above 12', 18-20', & 52-87'; more dense 30-43', 43-52', and 100-115'. Overall fine grained material throughout well.

SPN-89-01C

FL. = 65'; G.P. = 109-117'; Seal 104-109' but poor?; Low density 65-71 similar to response for seal; void in grout = 59-64'; more dense 32-37', 40-59', very dense 50-59'; cond. 25-40' w/ low neutron may be fine-grained "perched moisture"; Cond. 63-107' ? contamination?

SPN-89-02C

F.L. = 57'; G.P. is not obvious; no seal is indicated; CSB = 79-83' or maybe silty; Cond. 57-100' and very cond. 77-80'; fine-grained "perched moisture" = 40-46'; overall fine-grained background.

STRATIGRAPHIC CORRELATION BETWEEN WELLS

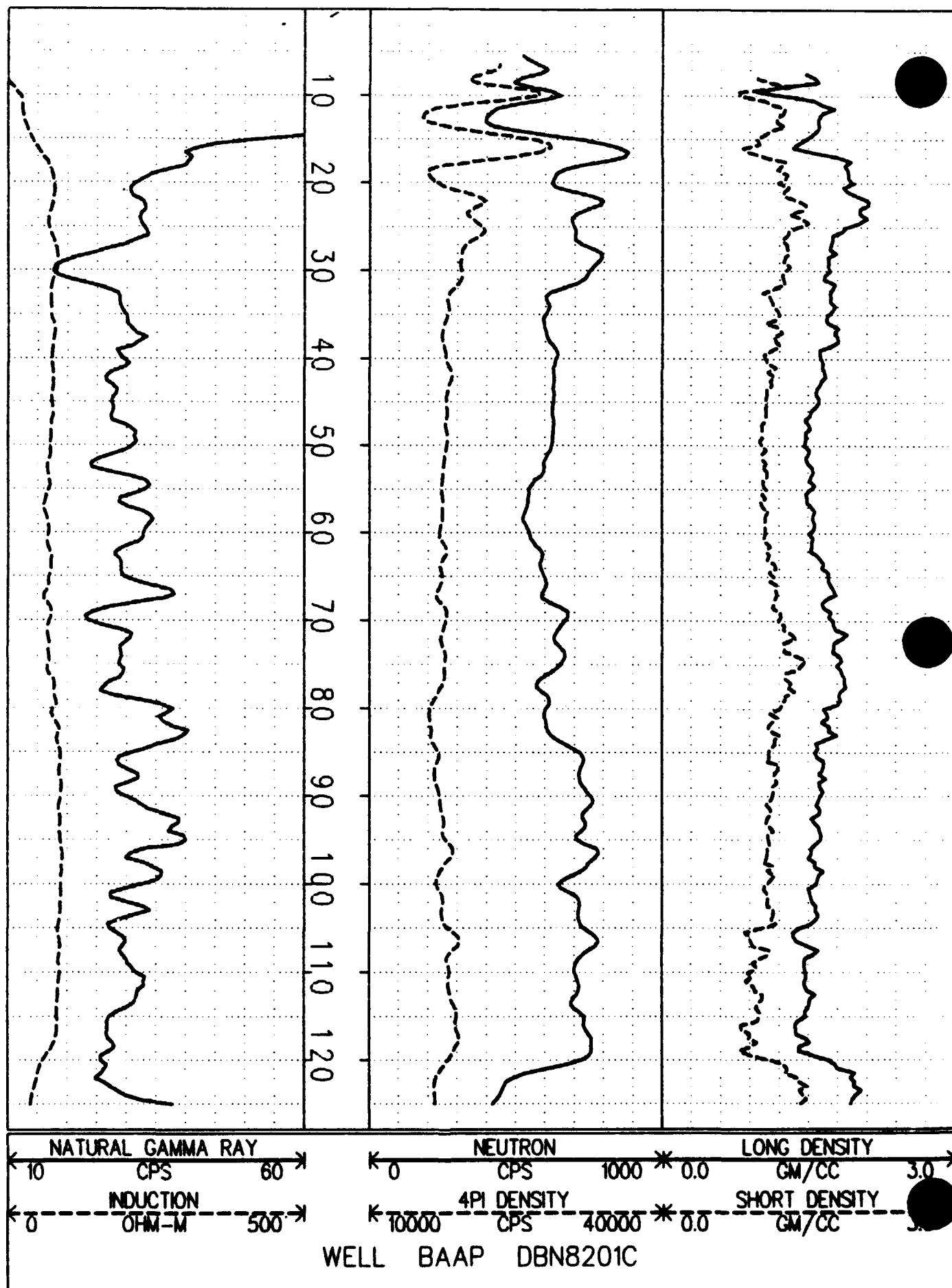
The gamma ray and the induction logs are the least affected by well completion and borehole effects, and are therefore the basis of which stratigraphic correlation were made. The induction logs appear to respond to other features including but not limited to clay or silt content such as possible contamination and or partial saturation of the formation above fluid level.

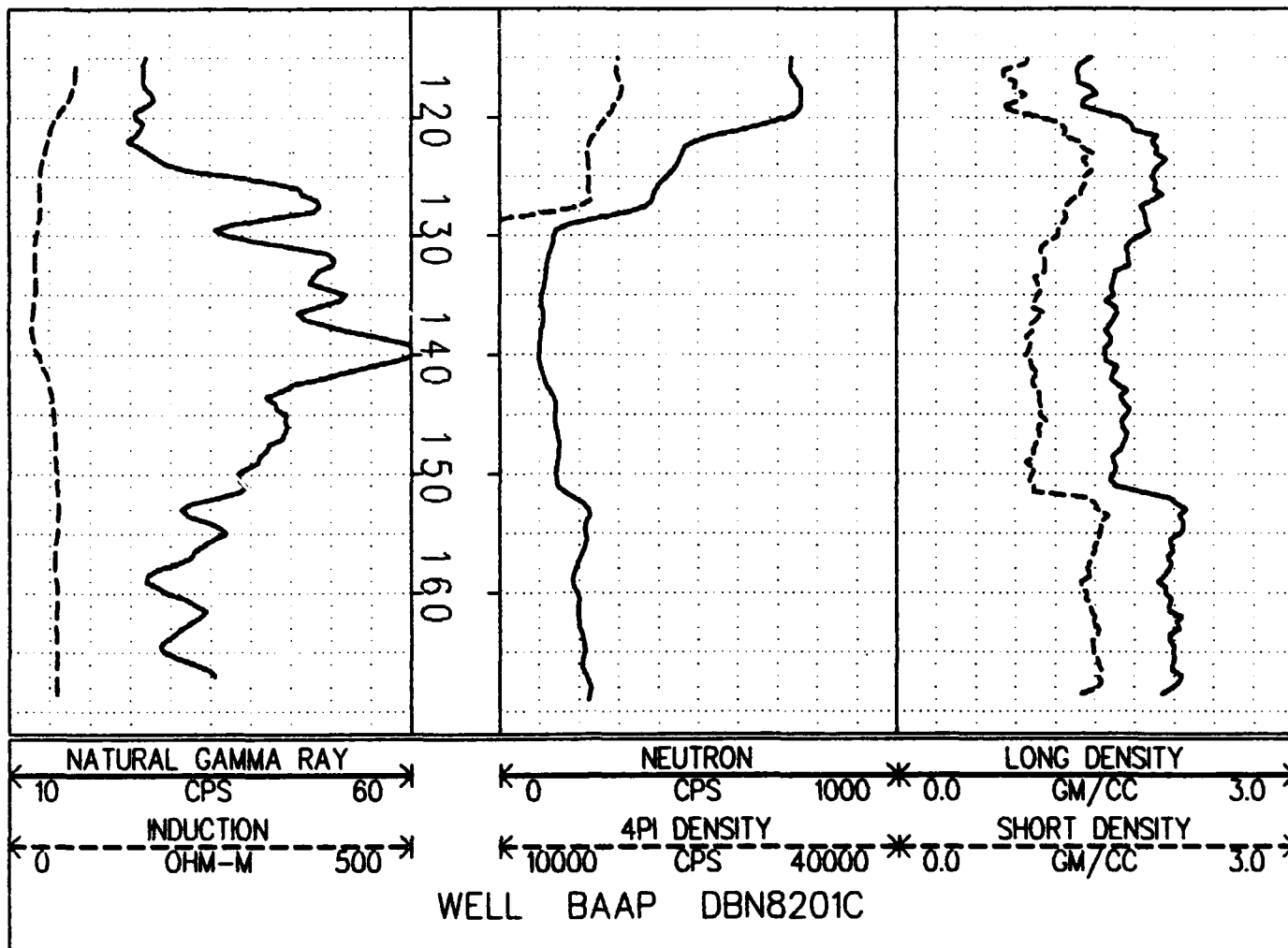
It seems likely that most of the wells in the Deterrent Burning Area and in the Area of the Existing Landfill could be correlated based upon the gamma ray log. The depth to a correlatable bed follow:

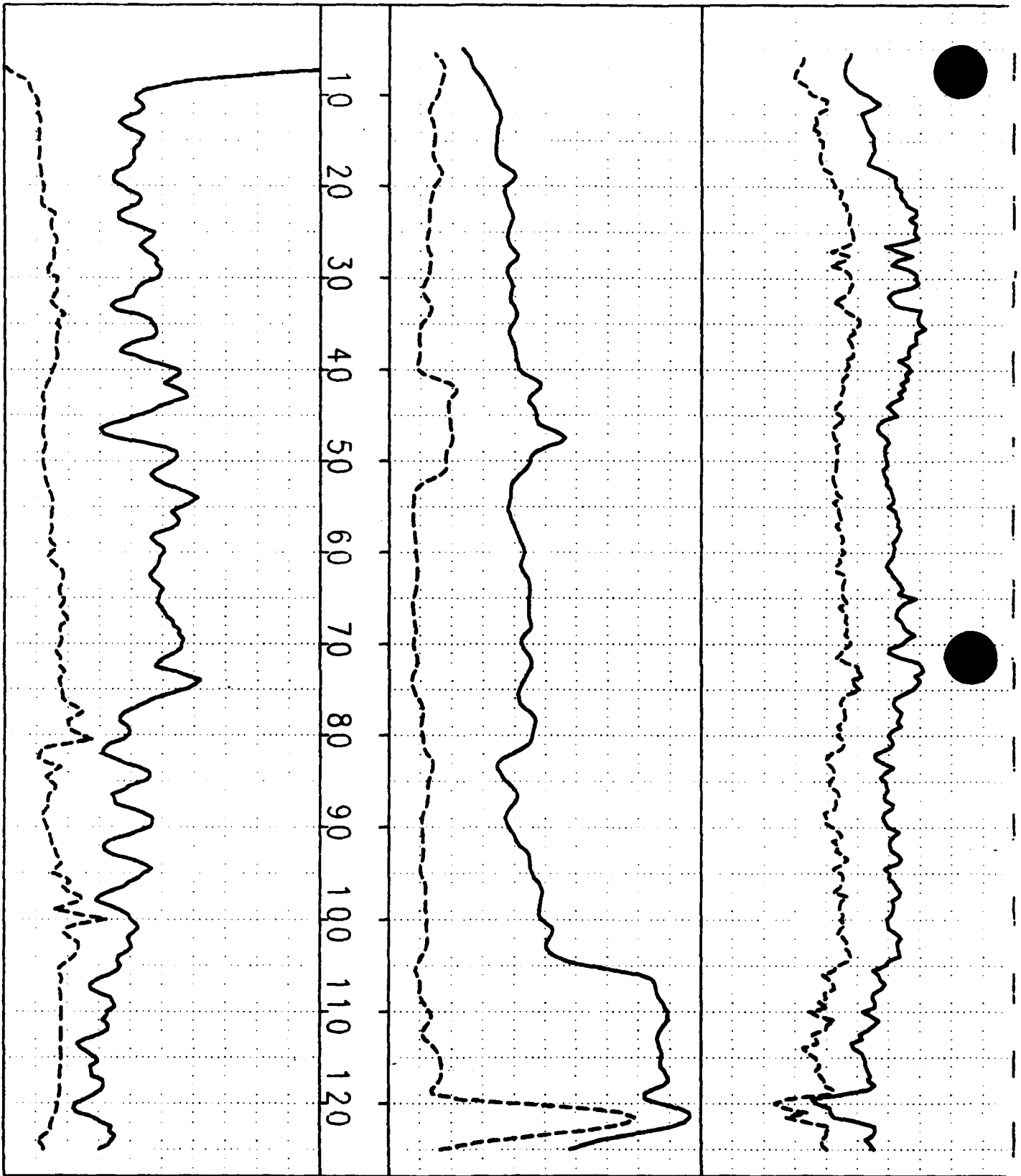
		elev. well riser	elev. marker
DBN-82-01C	125'	905	780
DBN-89-04B	162'	920	758
DBN-89-02B	106'?	887	781
ELN-82-03C	160'	920?	760?
ELM-89-03	120'	916	796
ELM-89-08	104'?	906	802
ELN-89-06B	128'	908	780
ELN-89-04B	168'	927	759
ELN-89-02B	135'	920	785
ELM-89-09	128'	922	794

DBN-82-02 may correlate with DBN-89-04B at 54', 76' and 85' in each well. The deeper CSB used to tie these other wells in is not apparent in DBN-82-02.

An apparent structure map of the top of this clay bed is included with this report as Figure E-1.

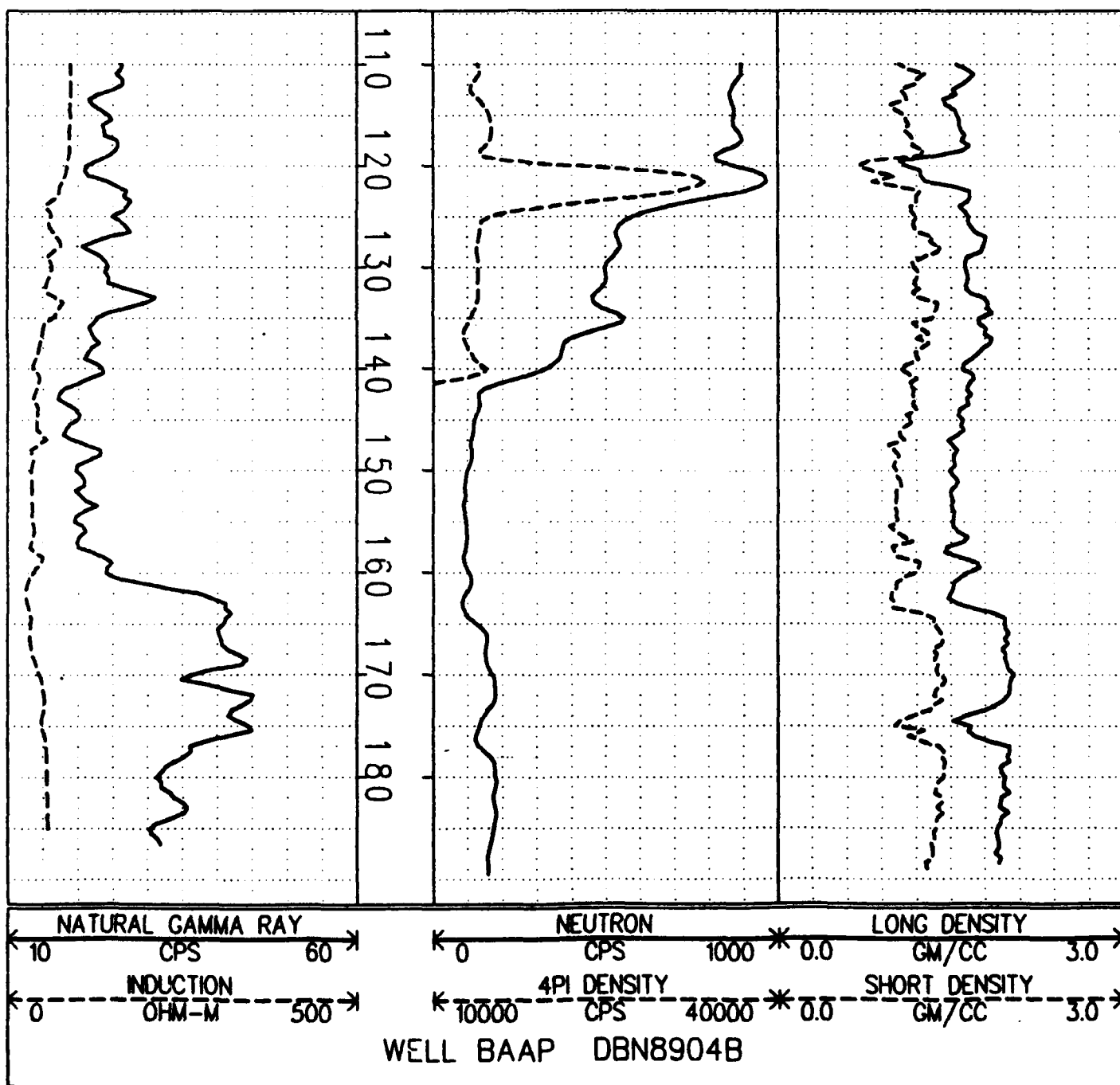


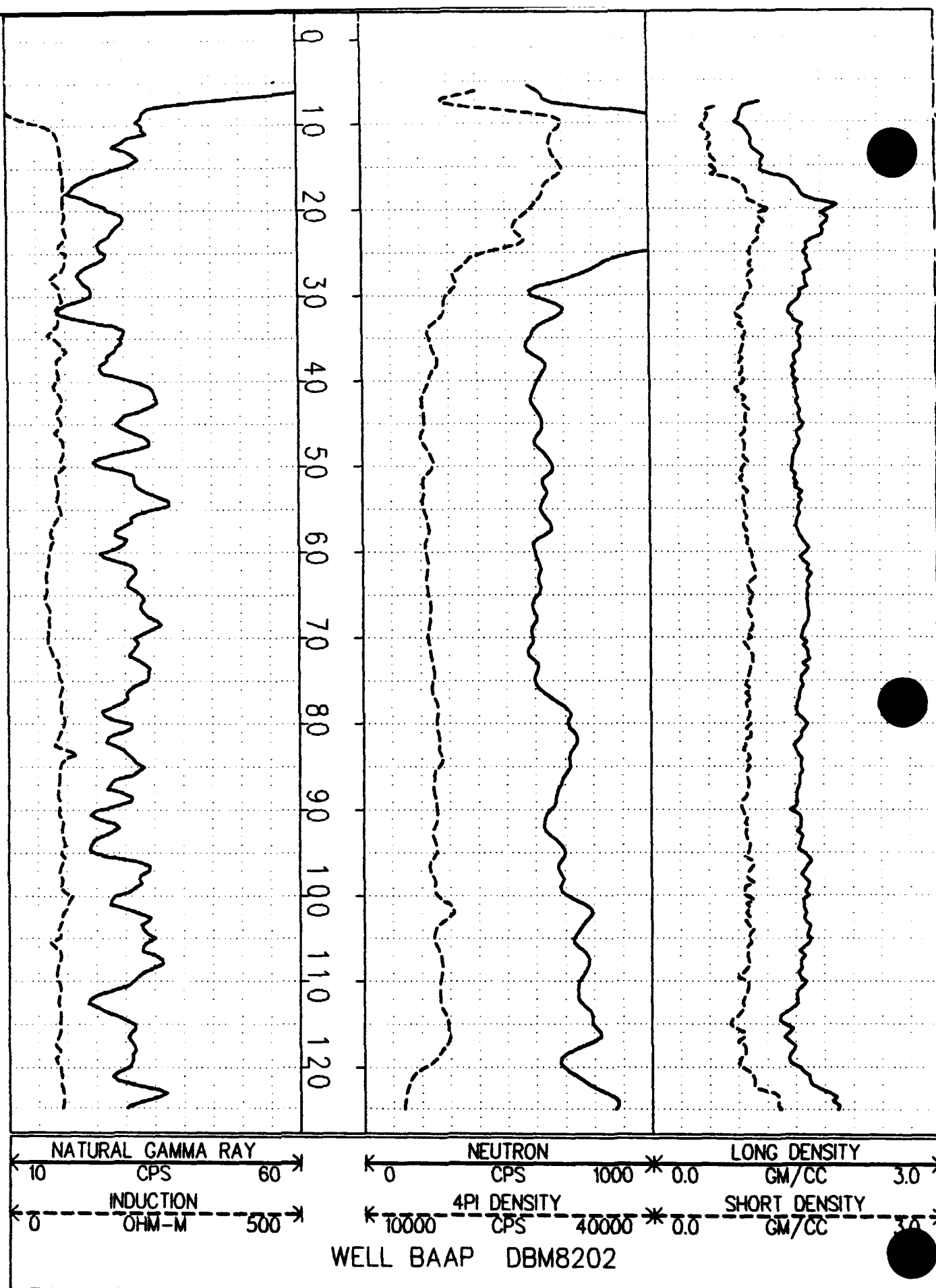


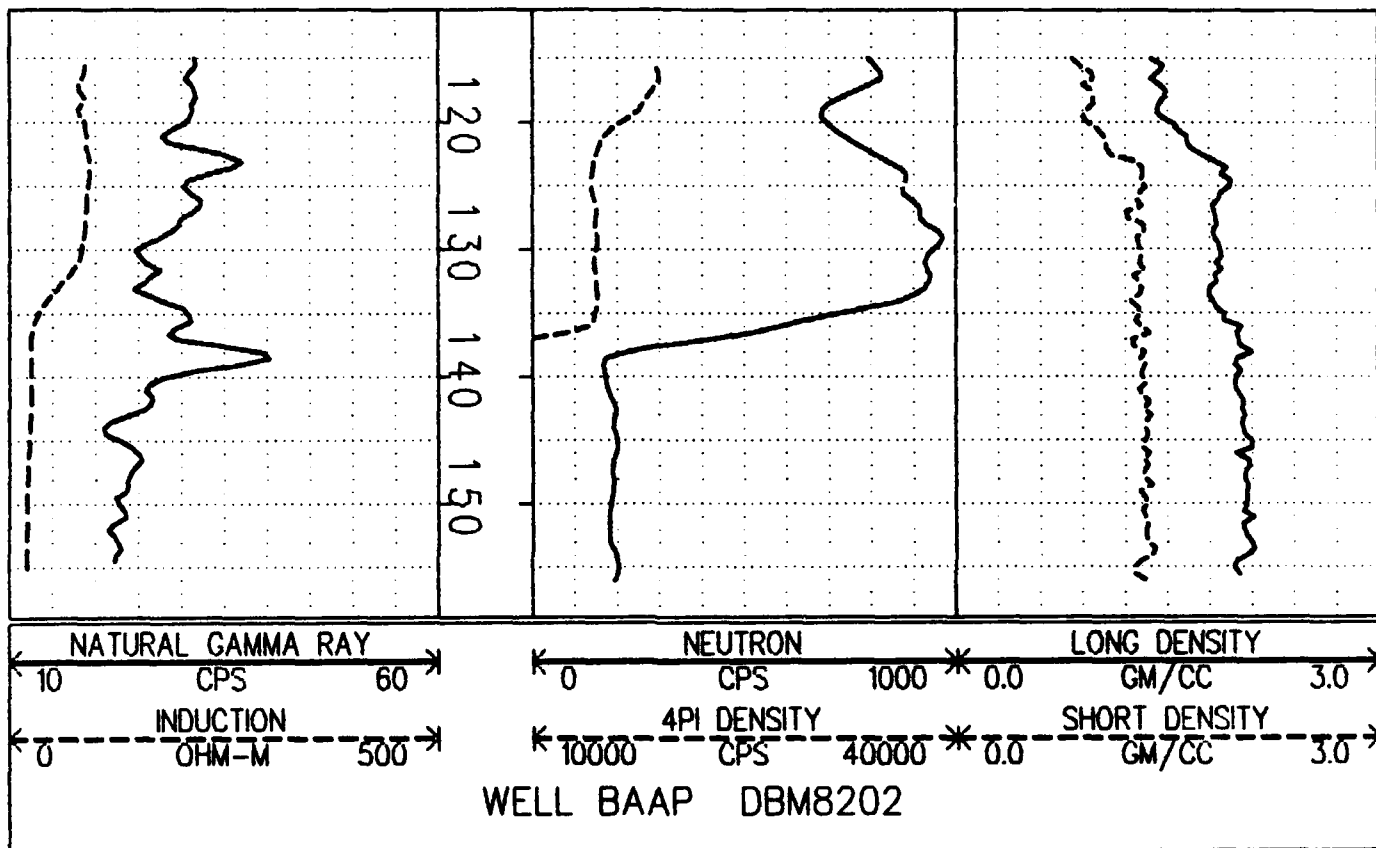


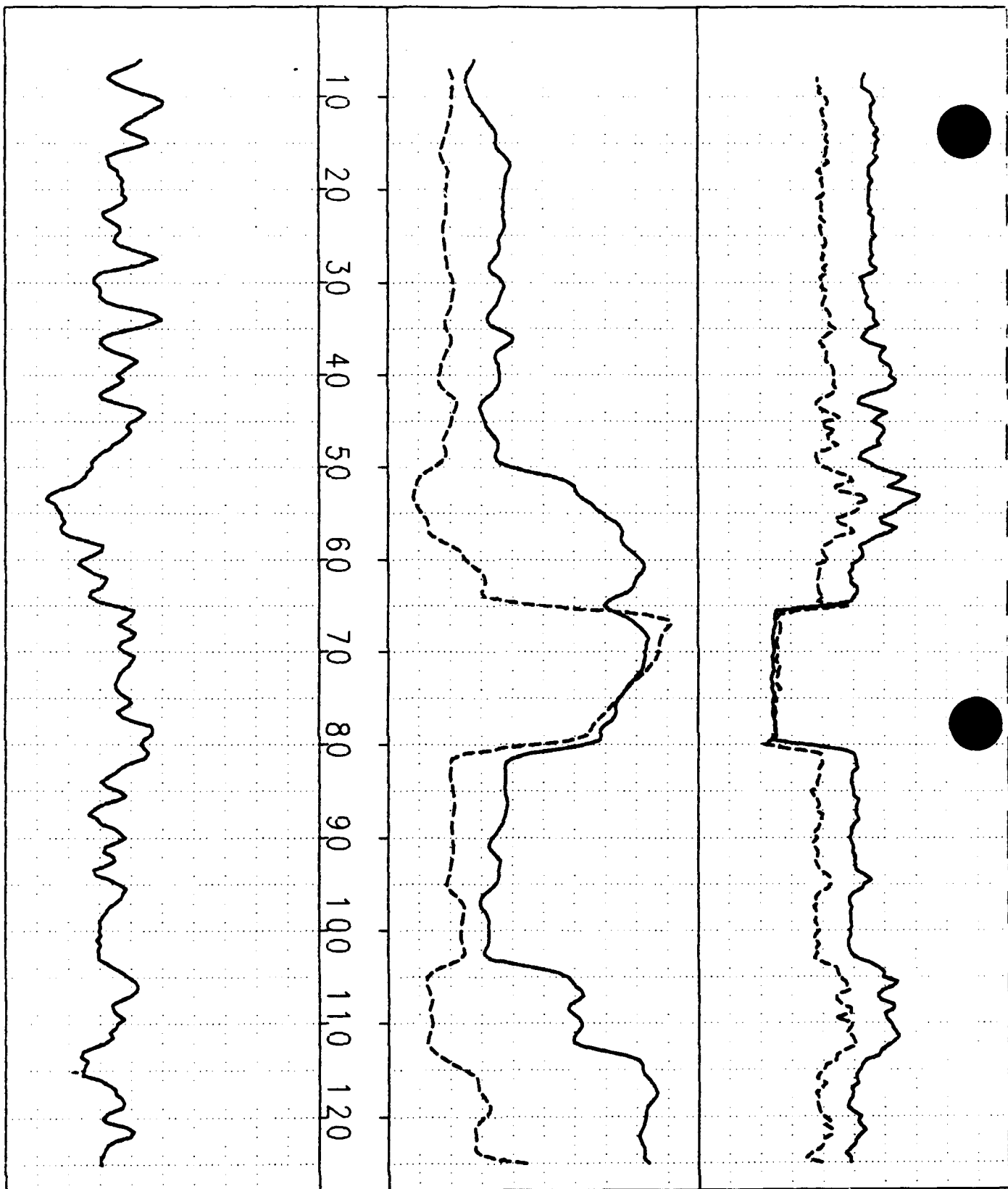
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CPS
10 60
INDUCTION
OHM-M
0 500
NEUTRON
CPS
0 1000
4PI DENSITY
CPS
10000 40000
LONG DENSITY
GM/CC
0.0 3.0
SHORT DENSITY
GM/CC
0.0 3.0

WELL BAAP DBN8904B









NATURAL GAMMA RAY
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INDUCTION
0 OHM-M 500

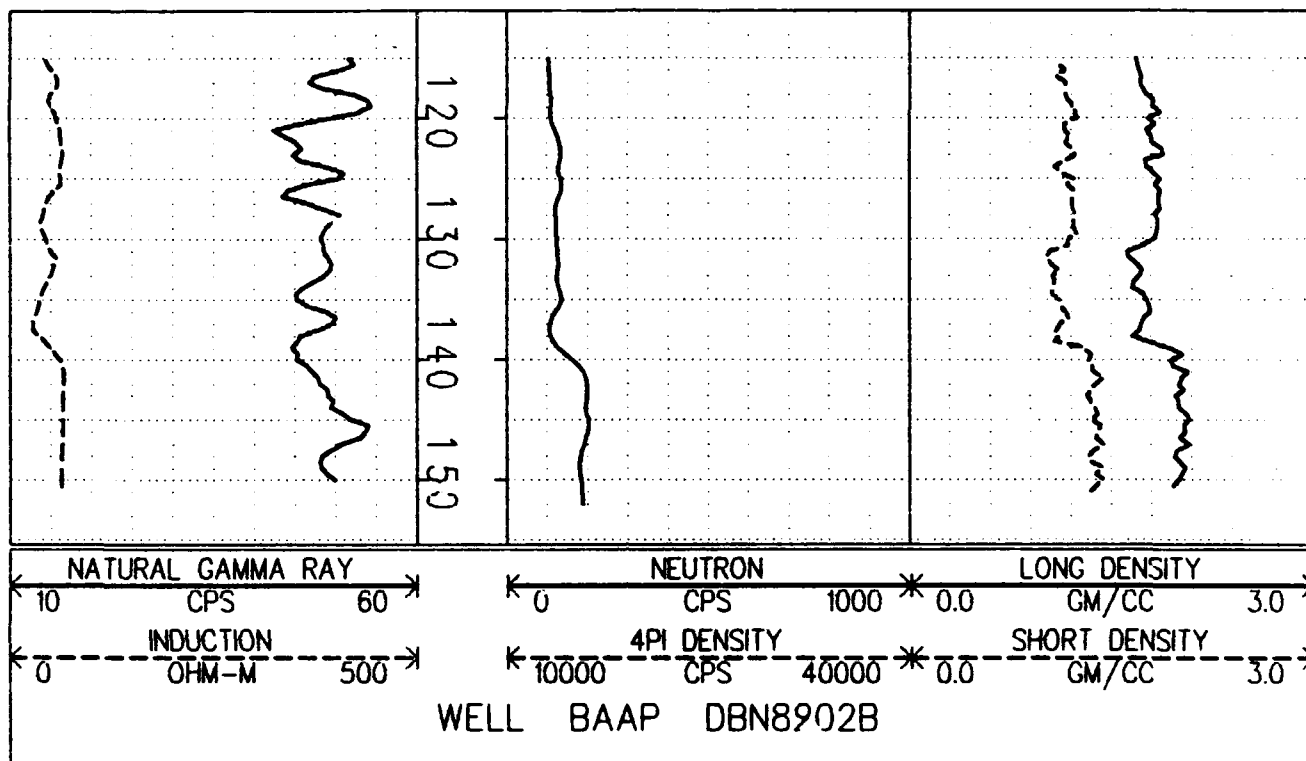
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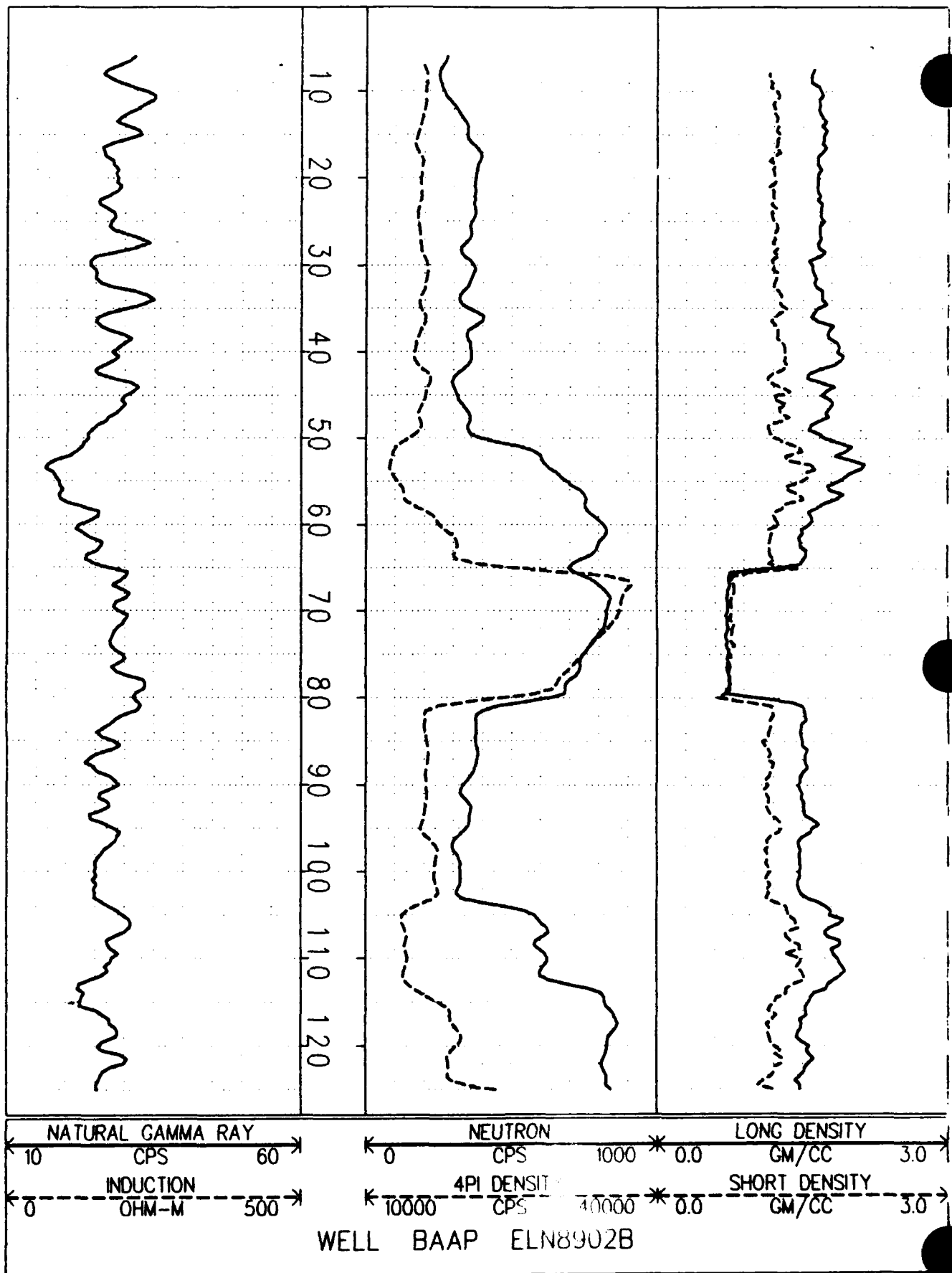
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10000 CPS 40000 *

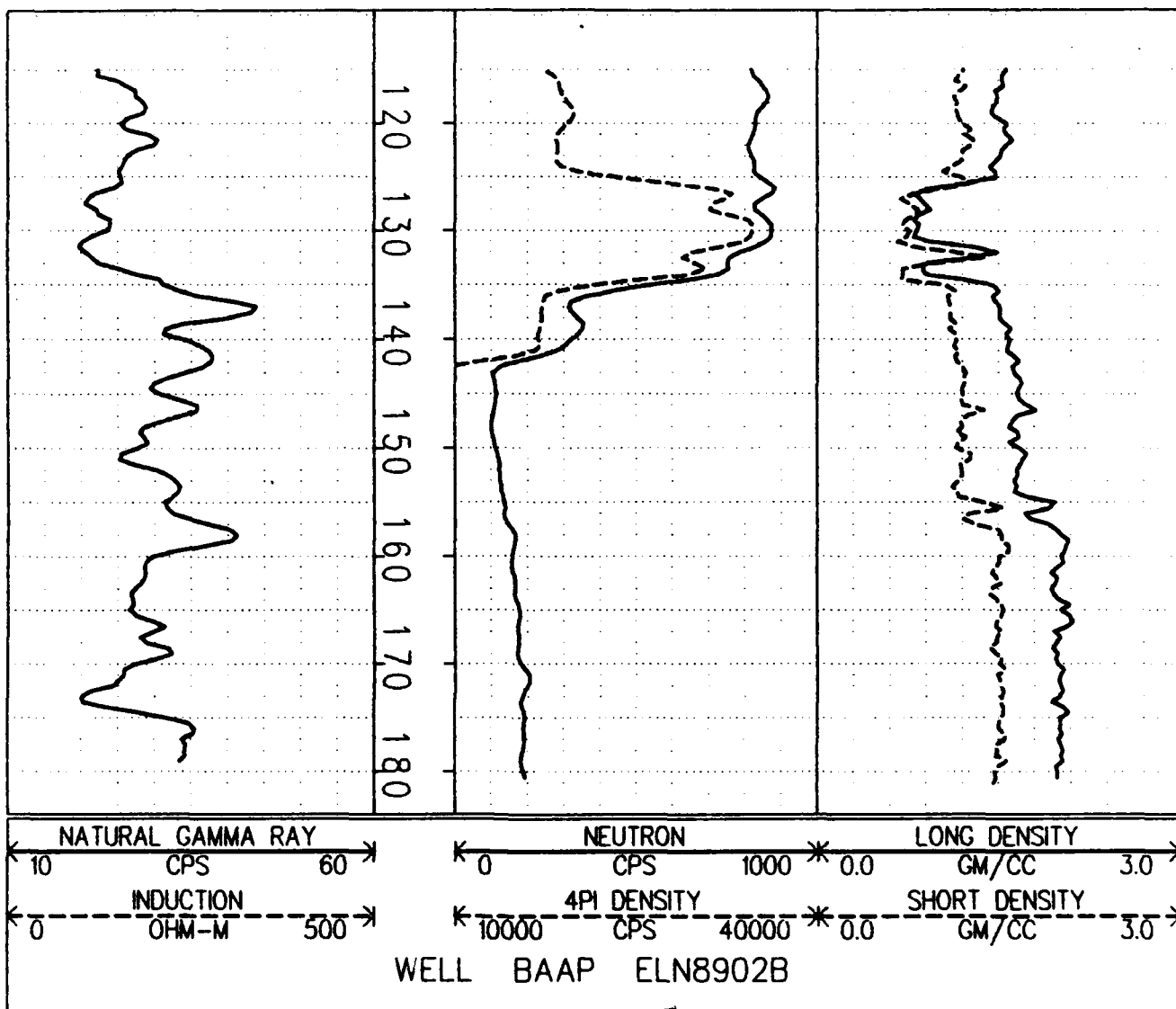
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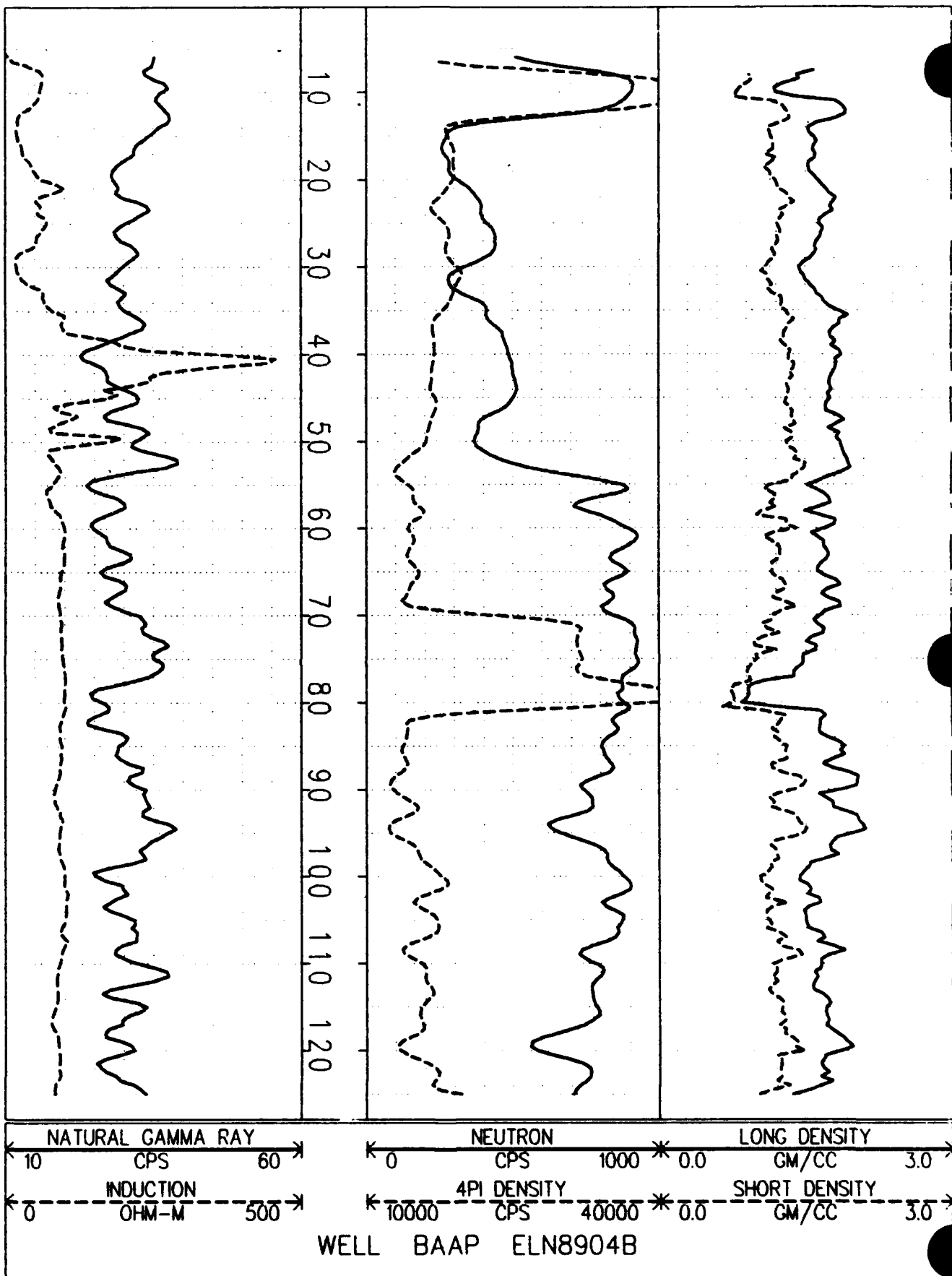
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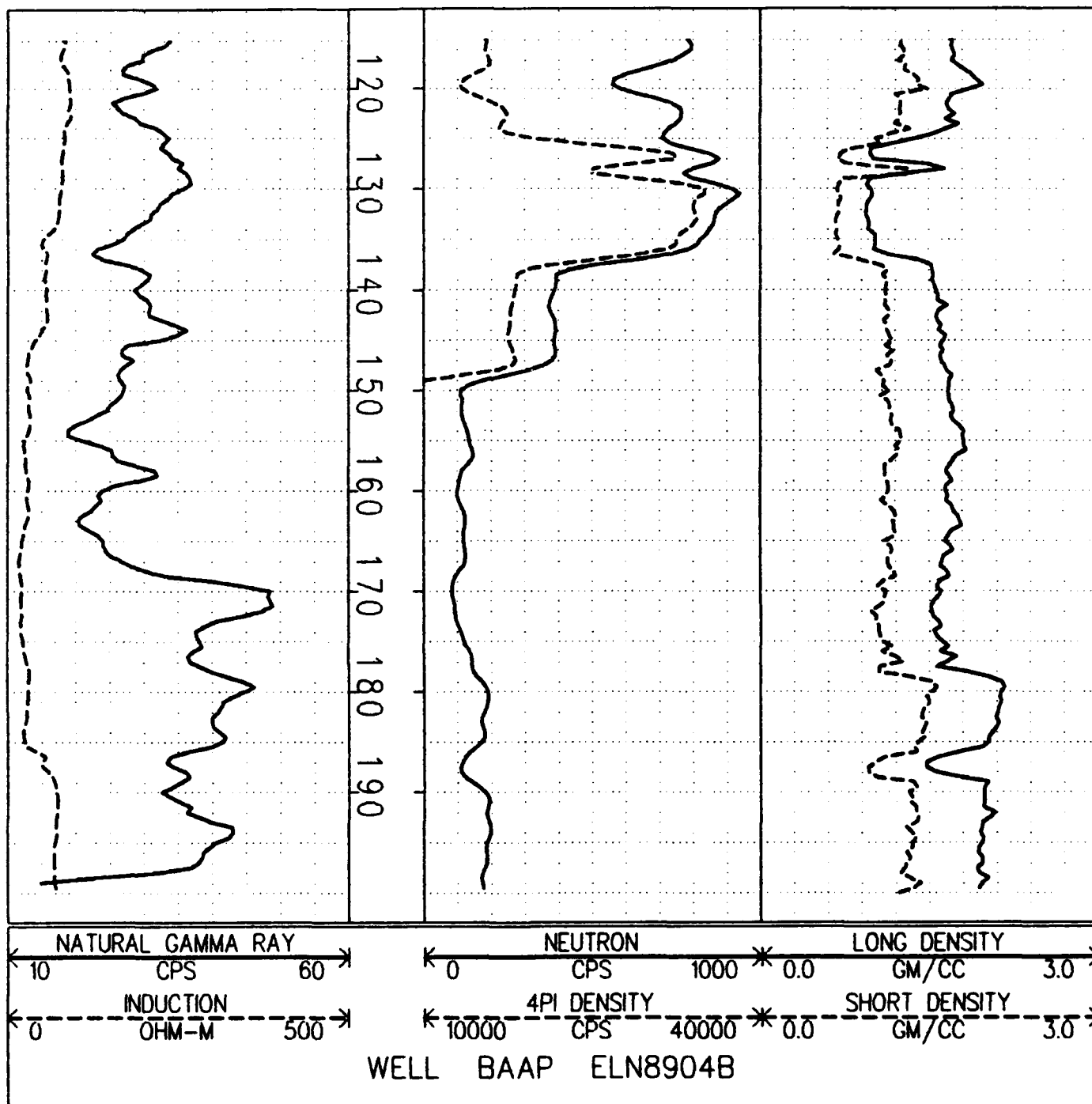
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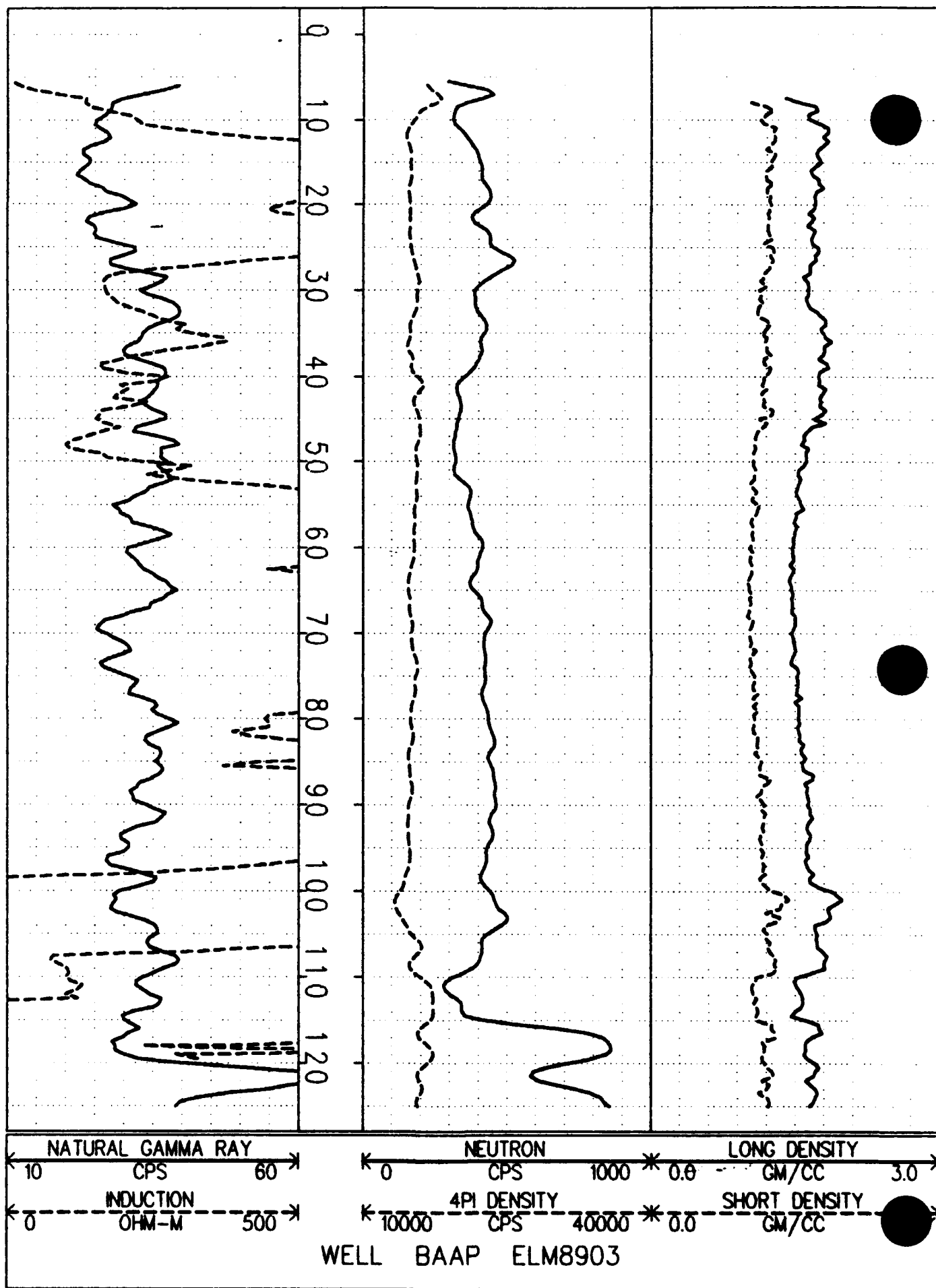


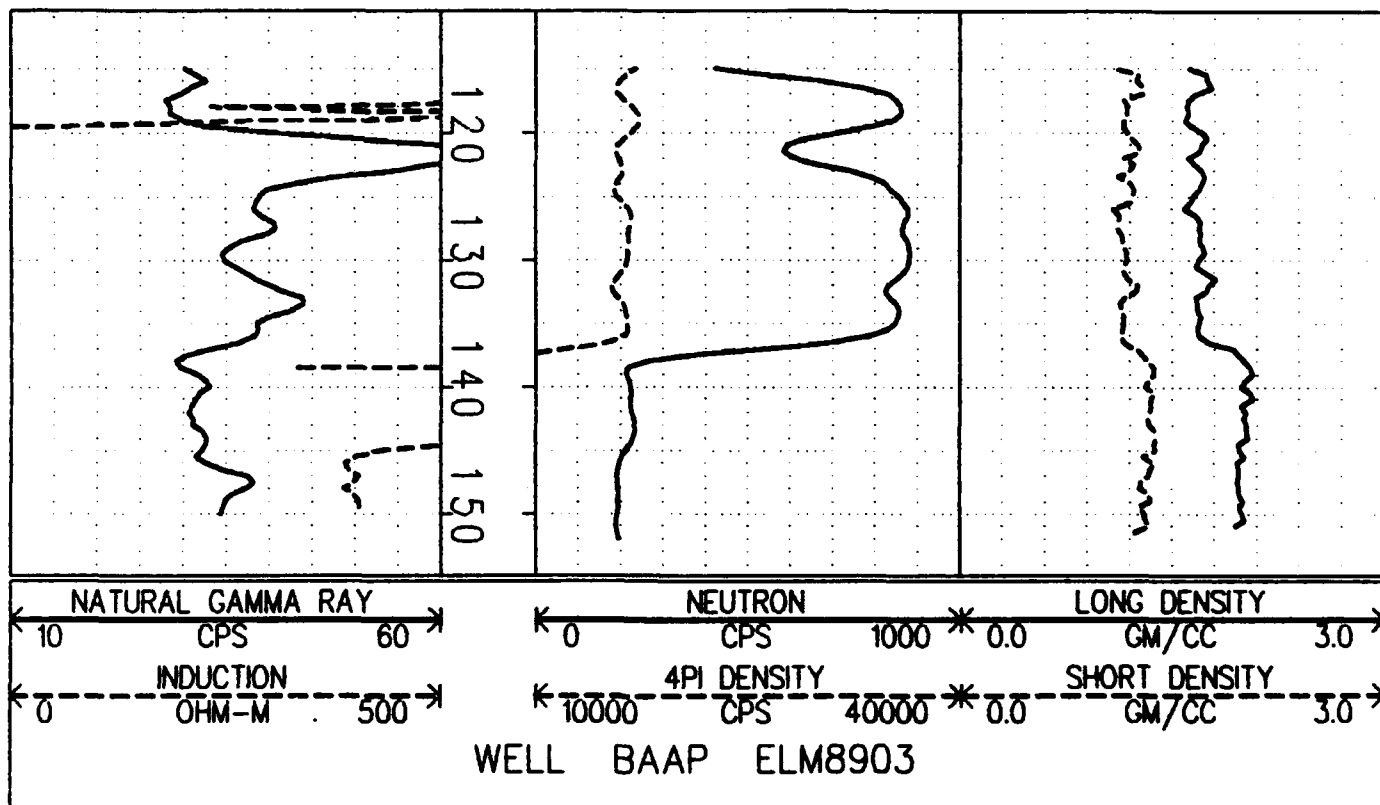


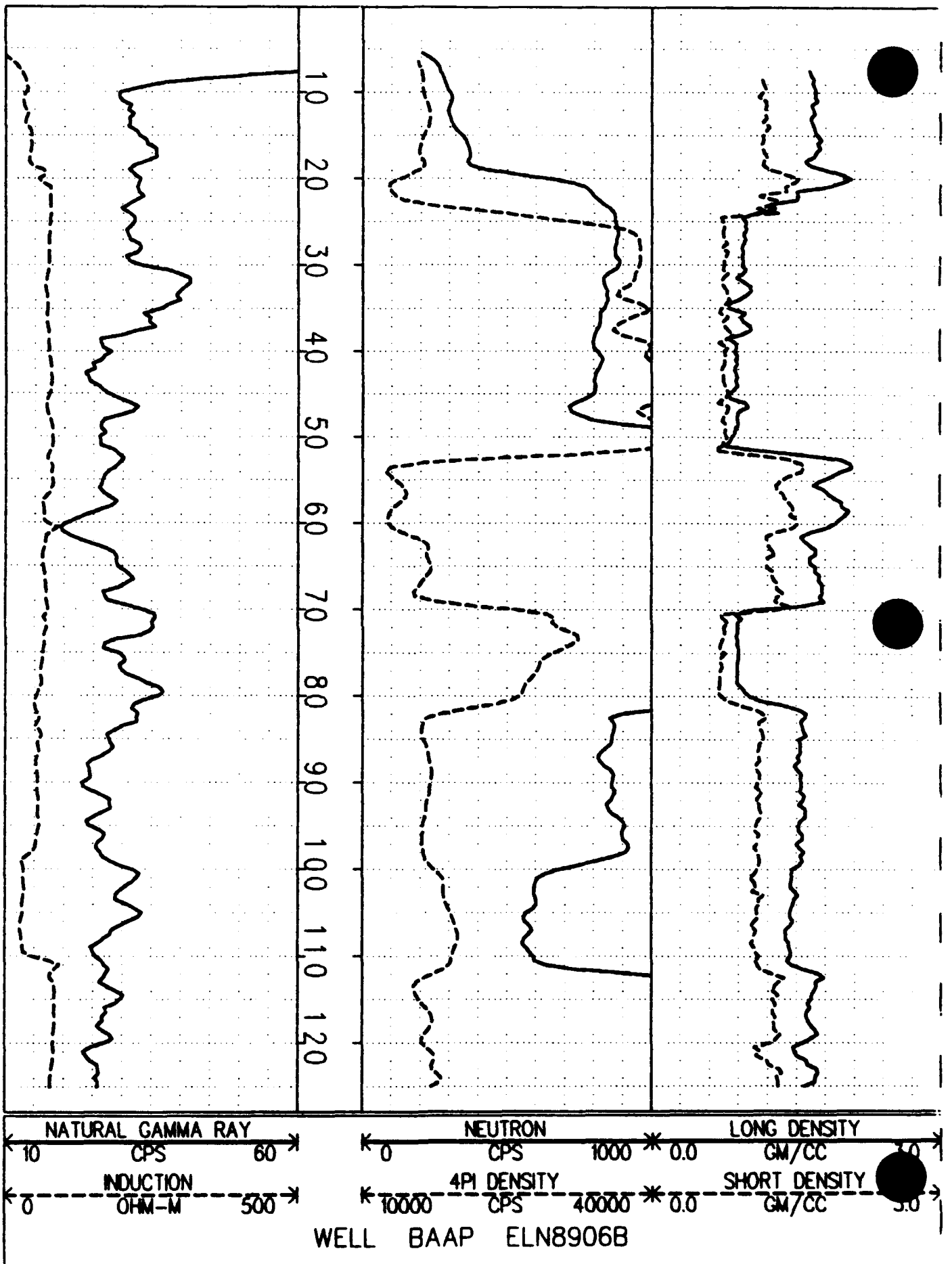


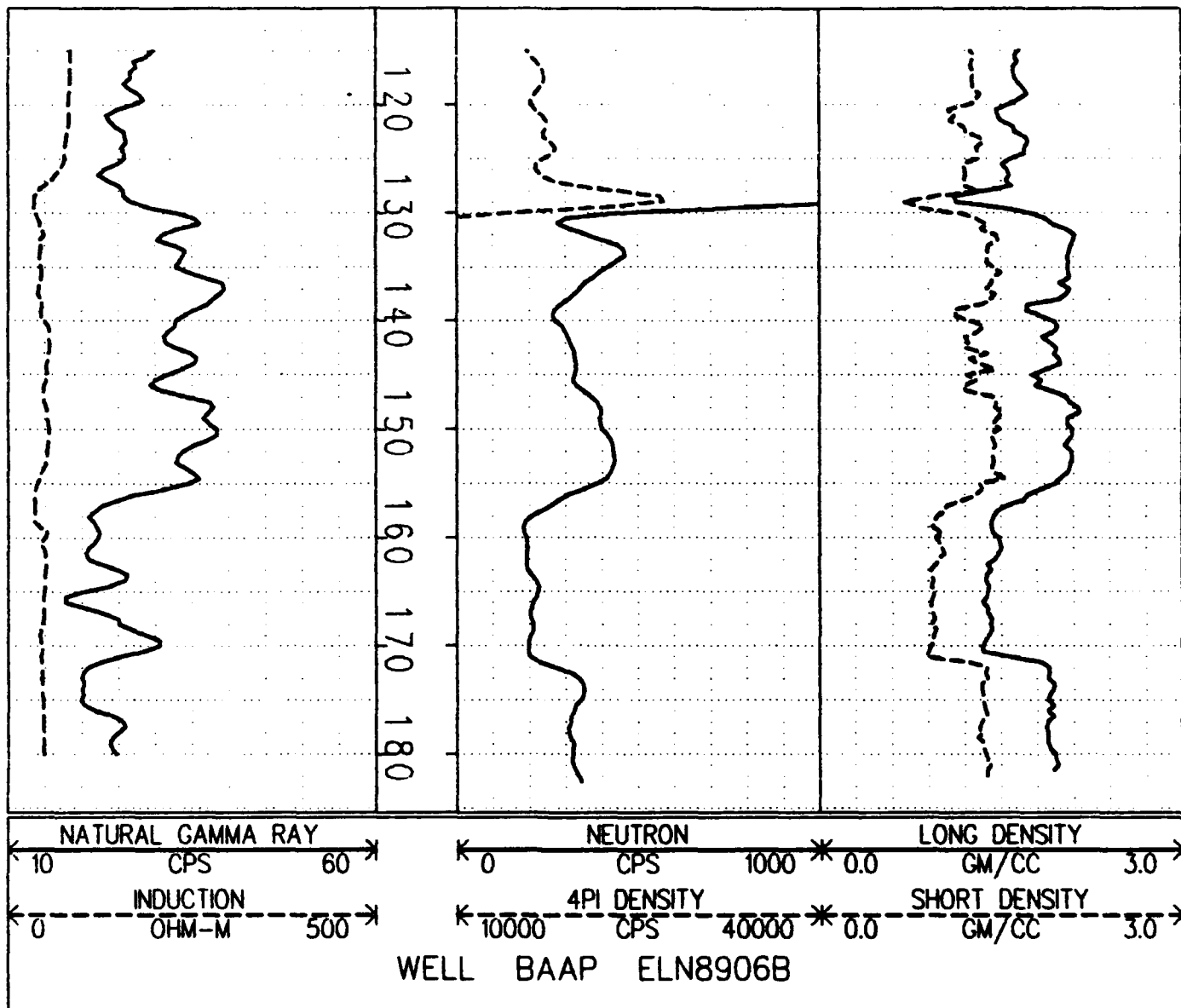


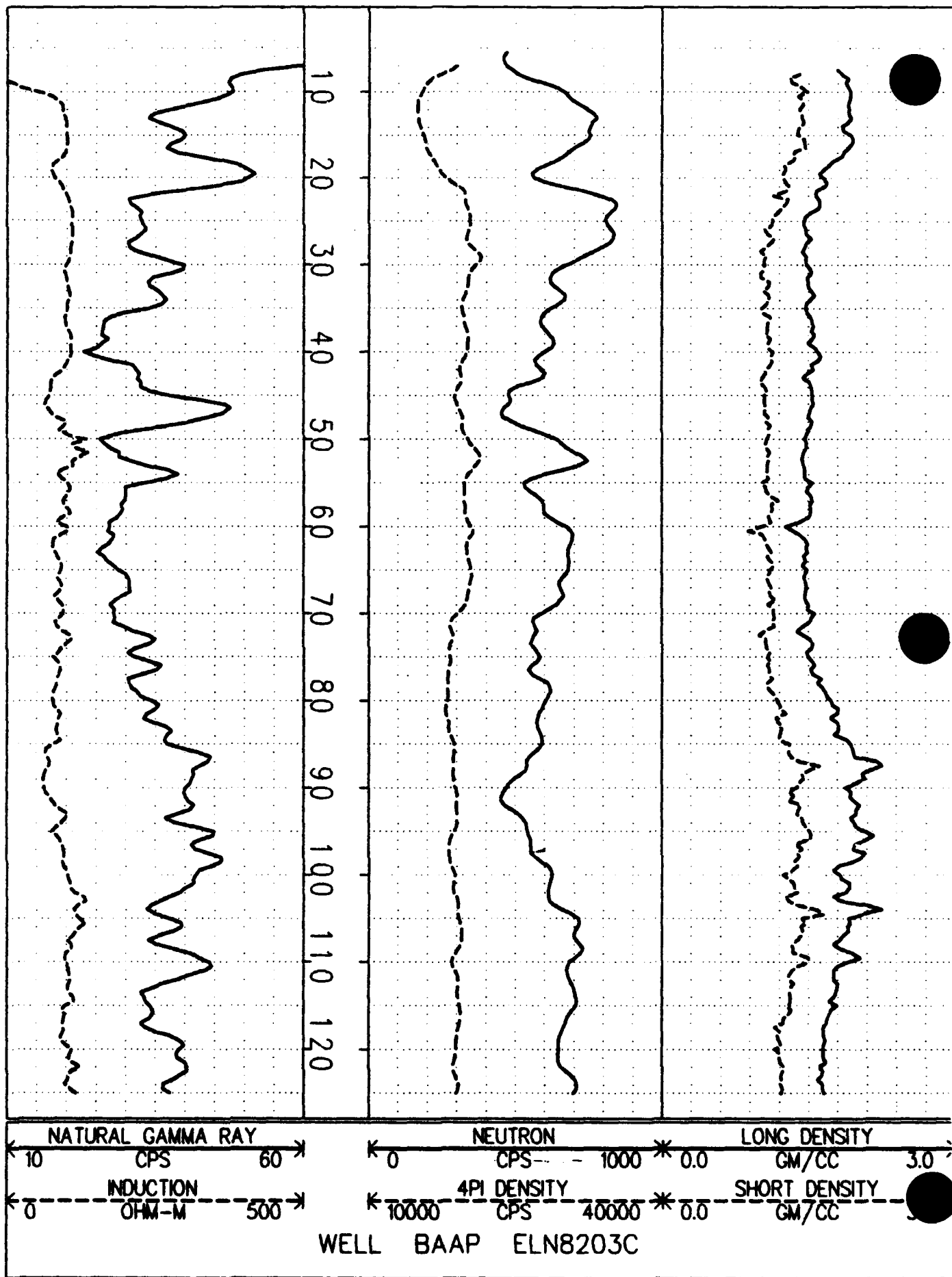


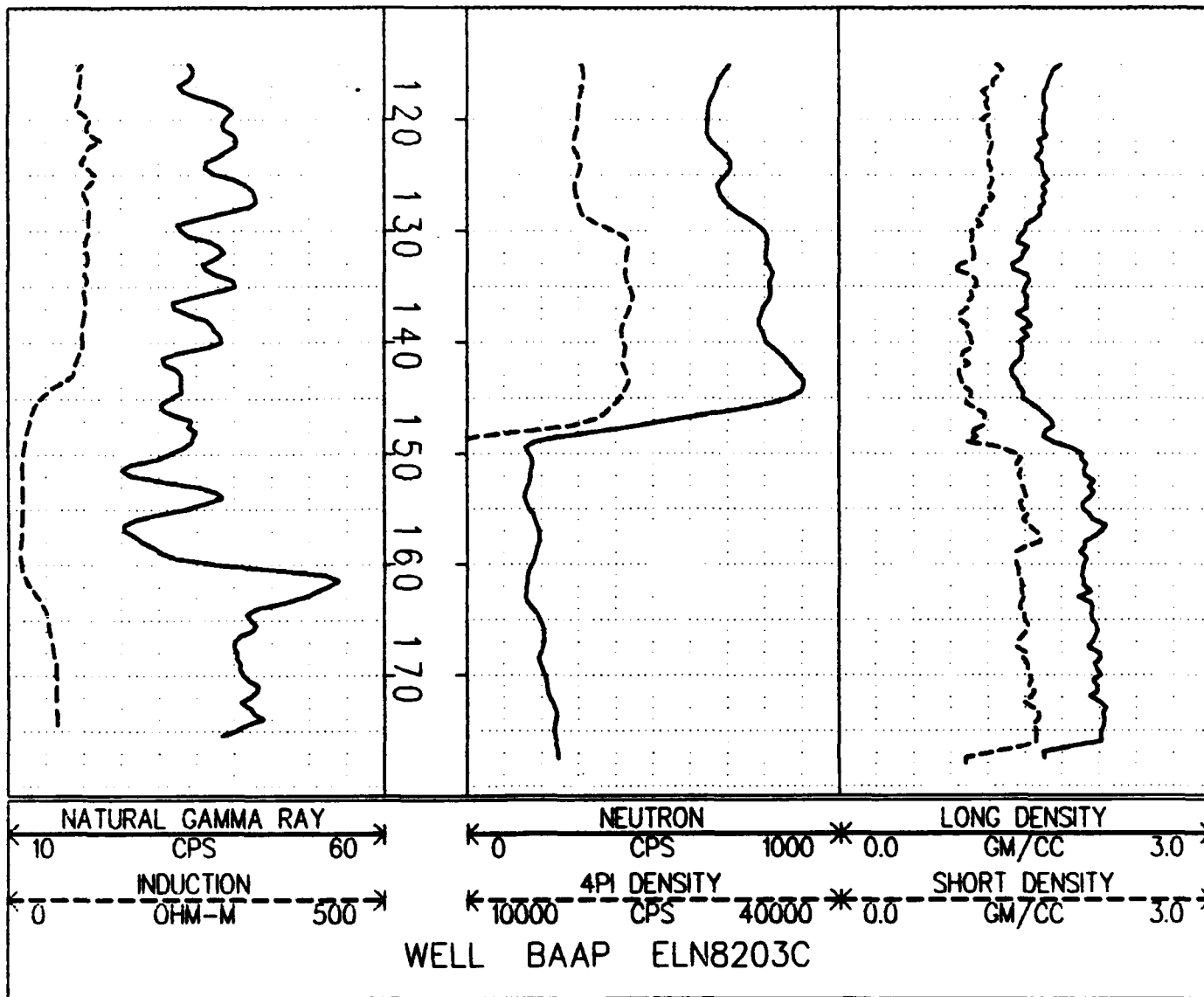


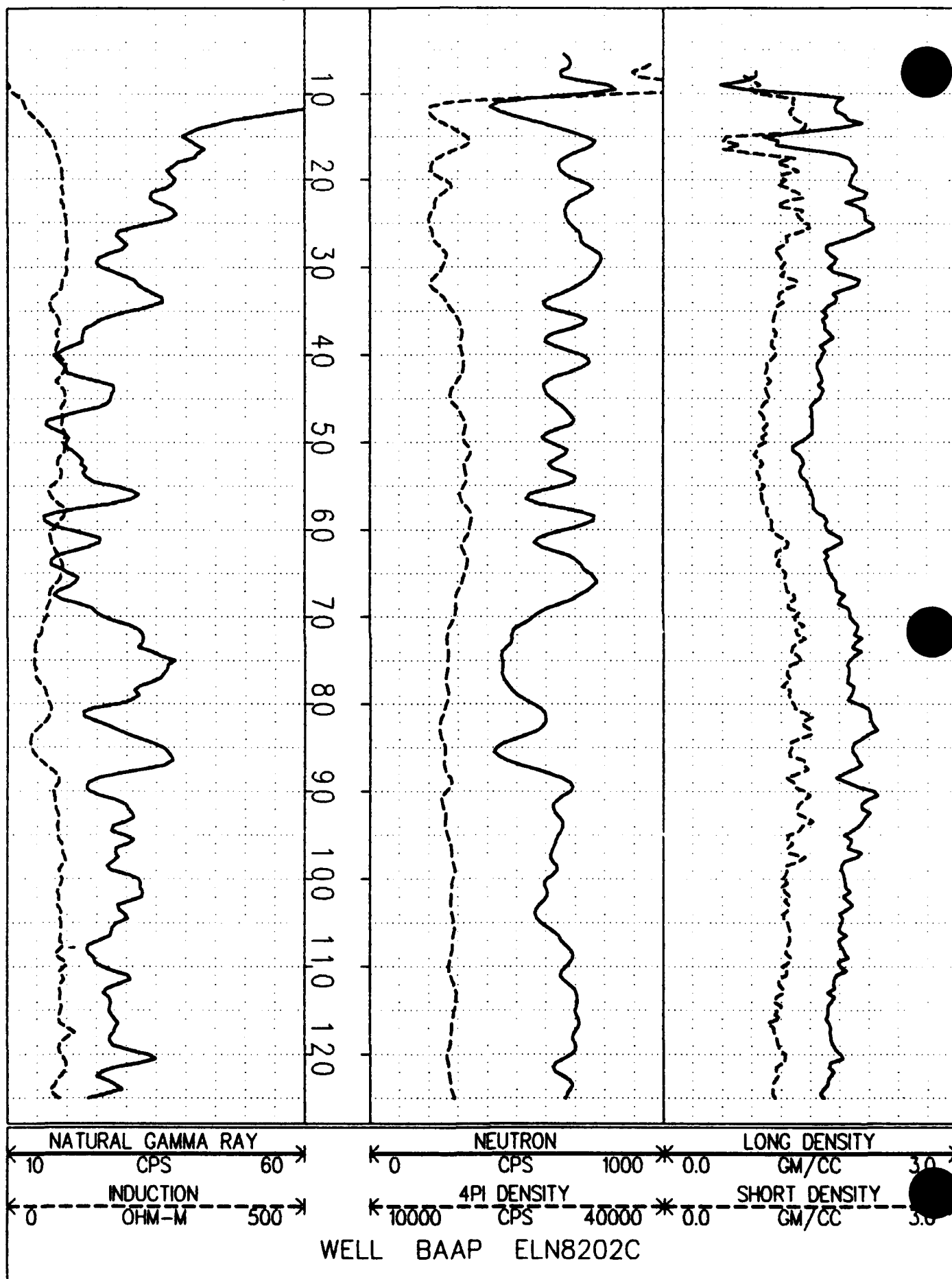


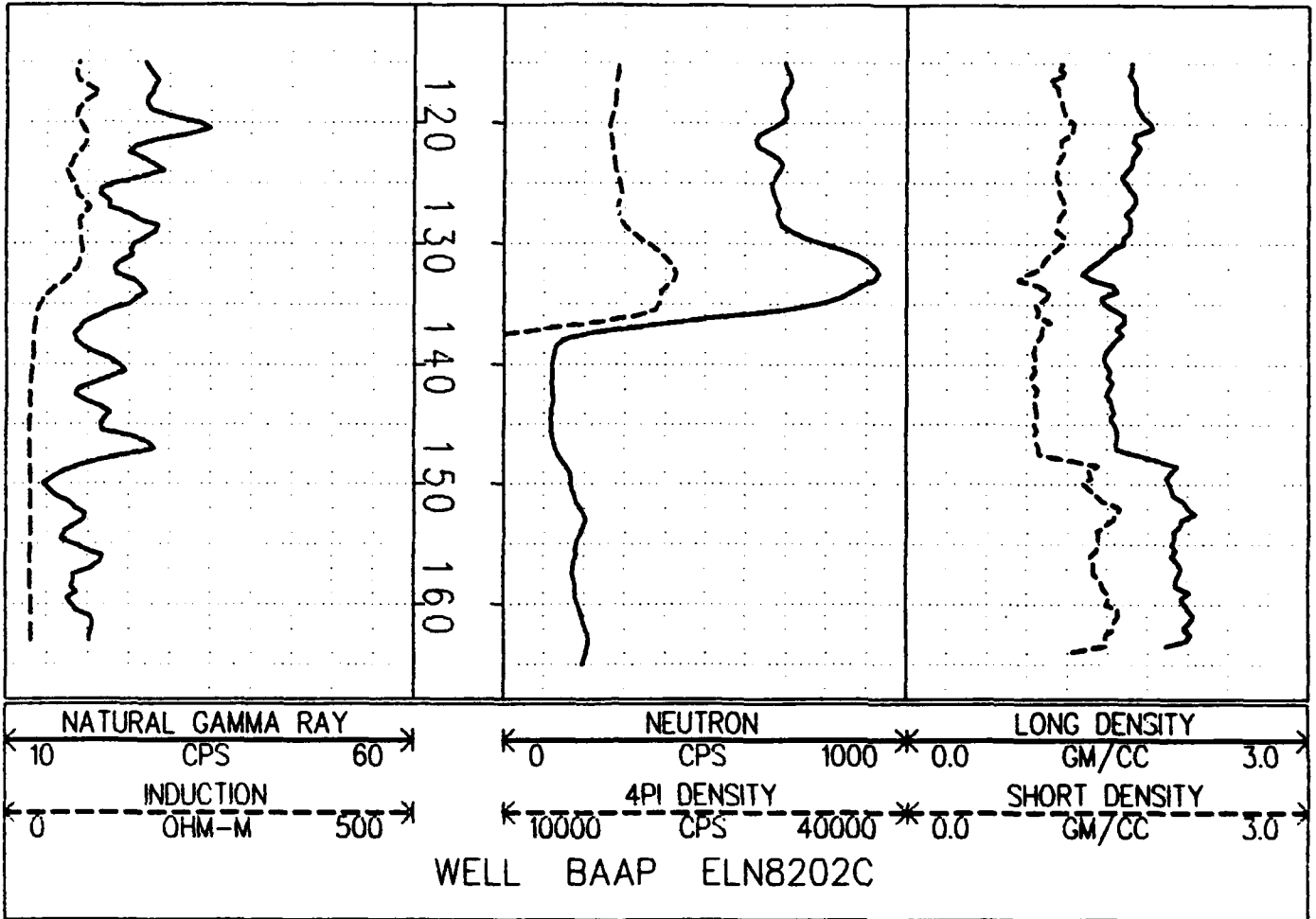


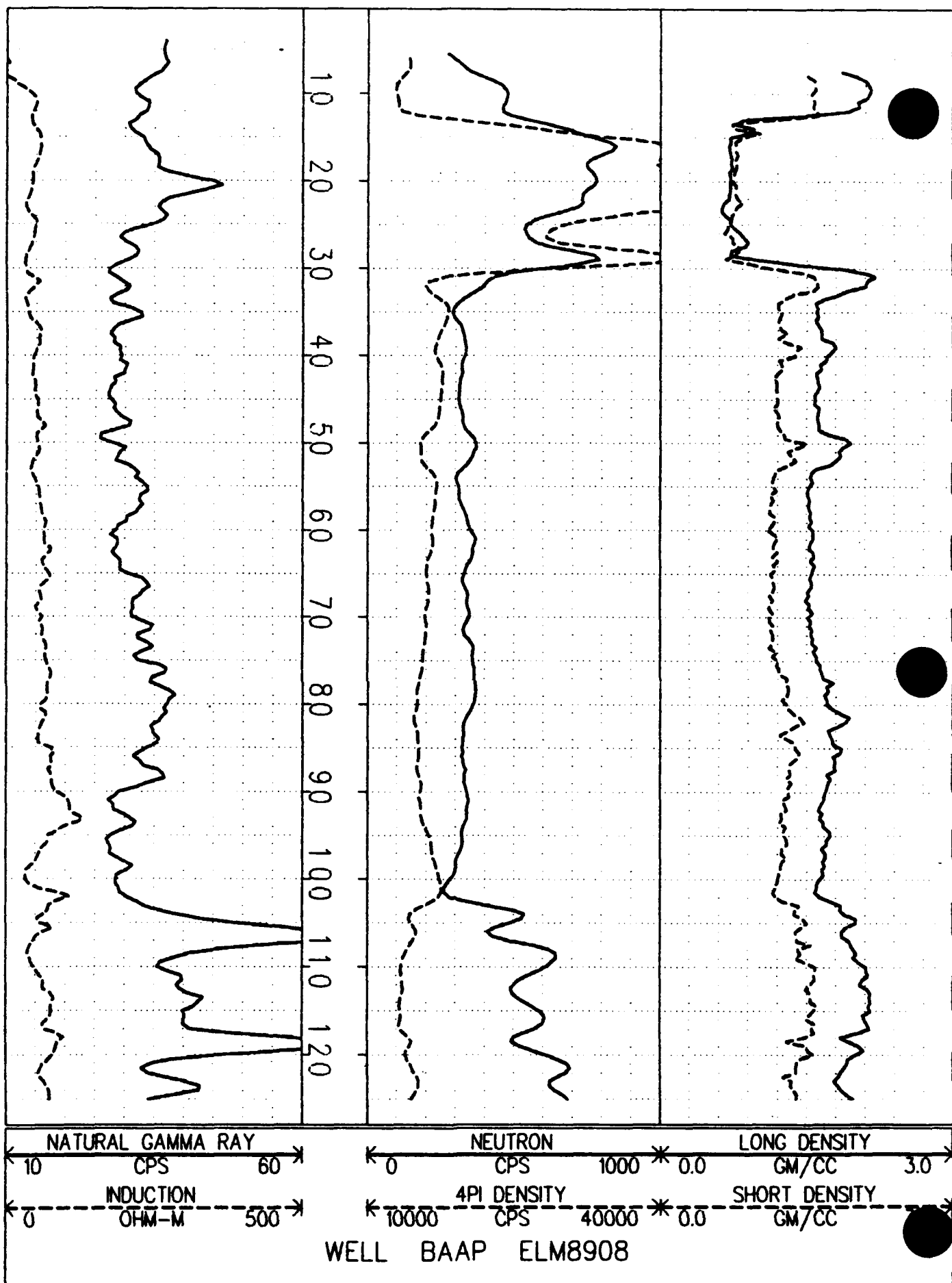


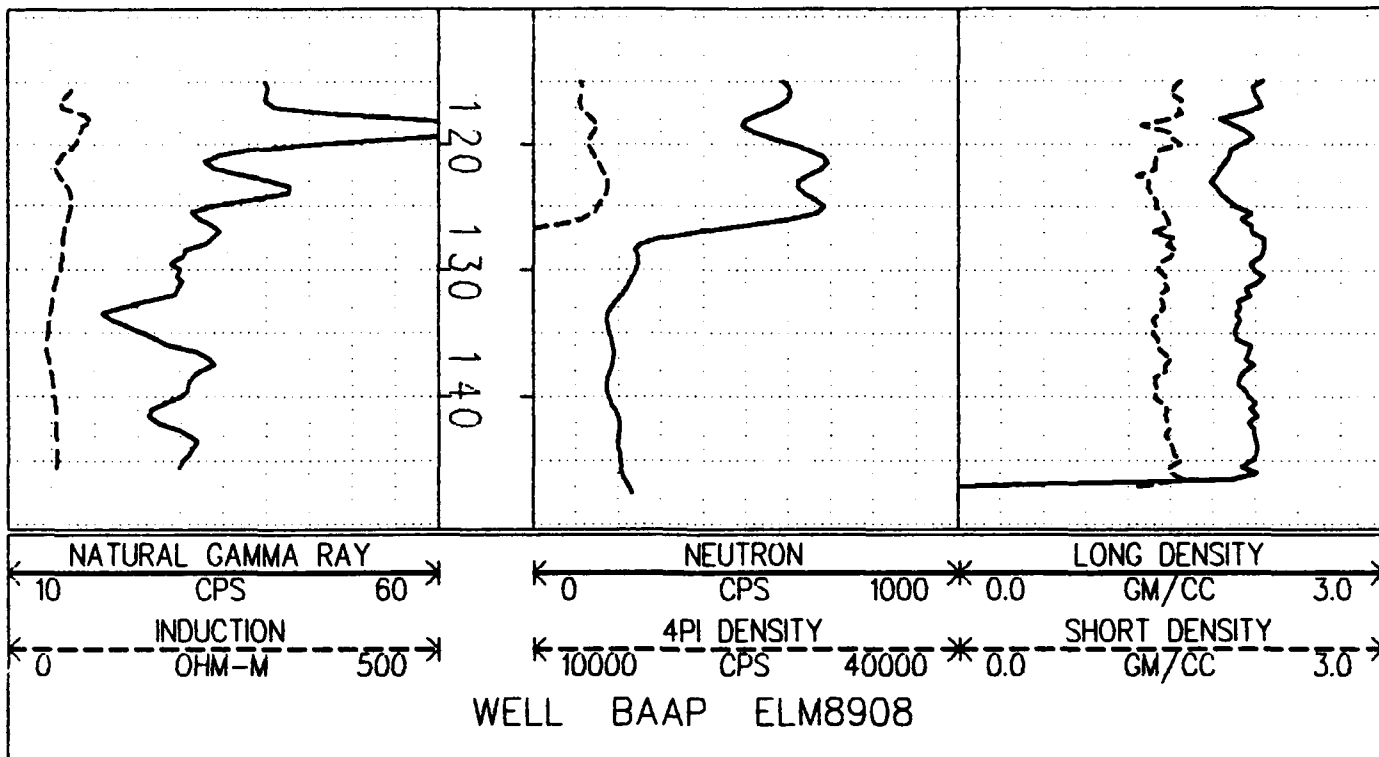


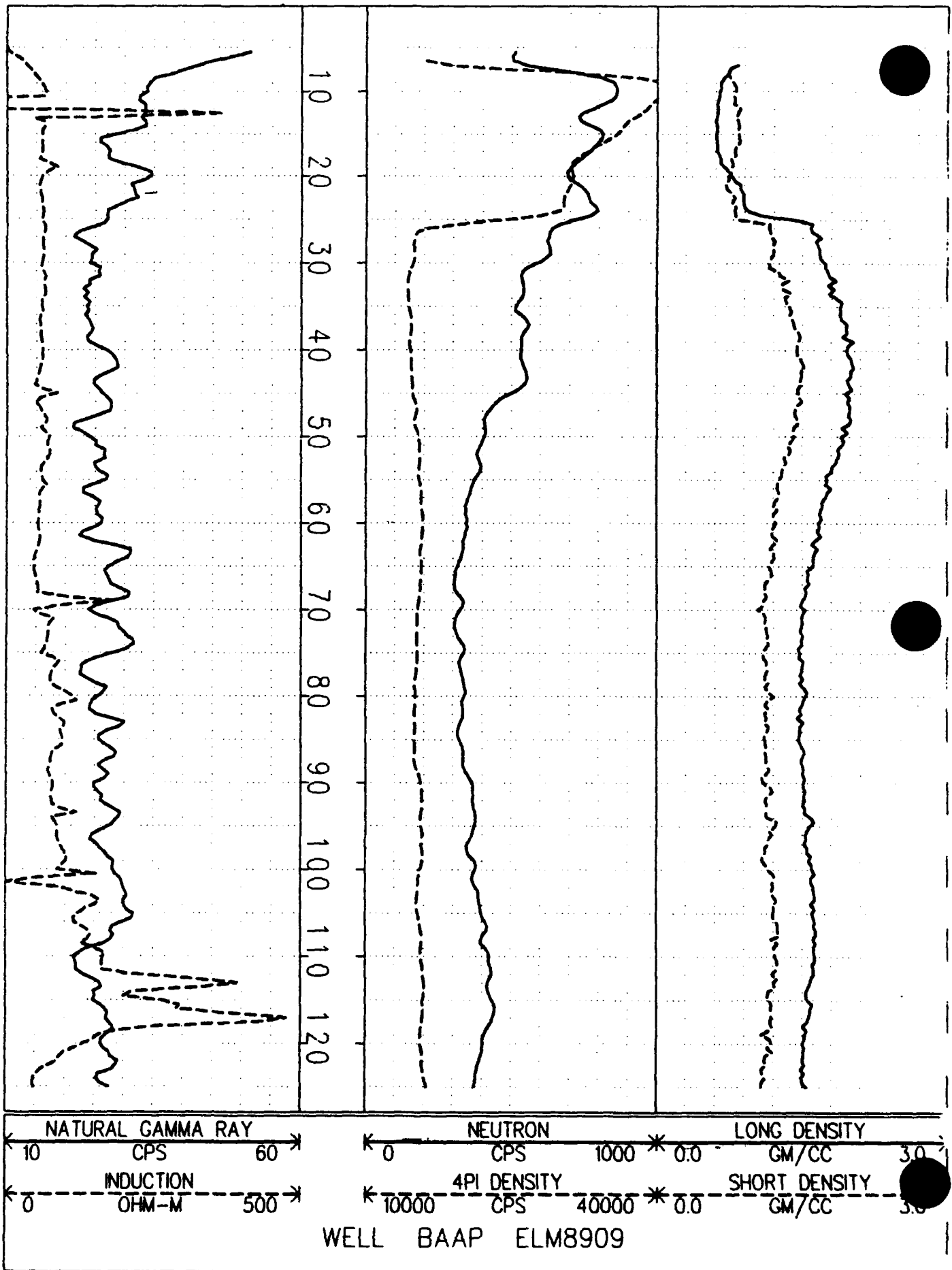


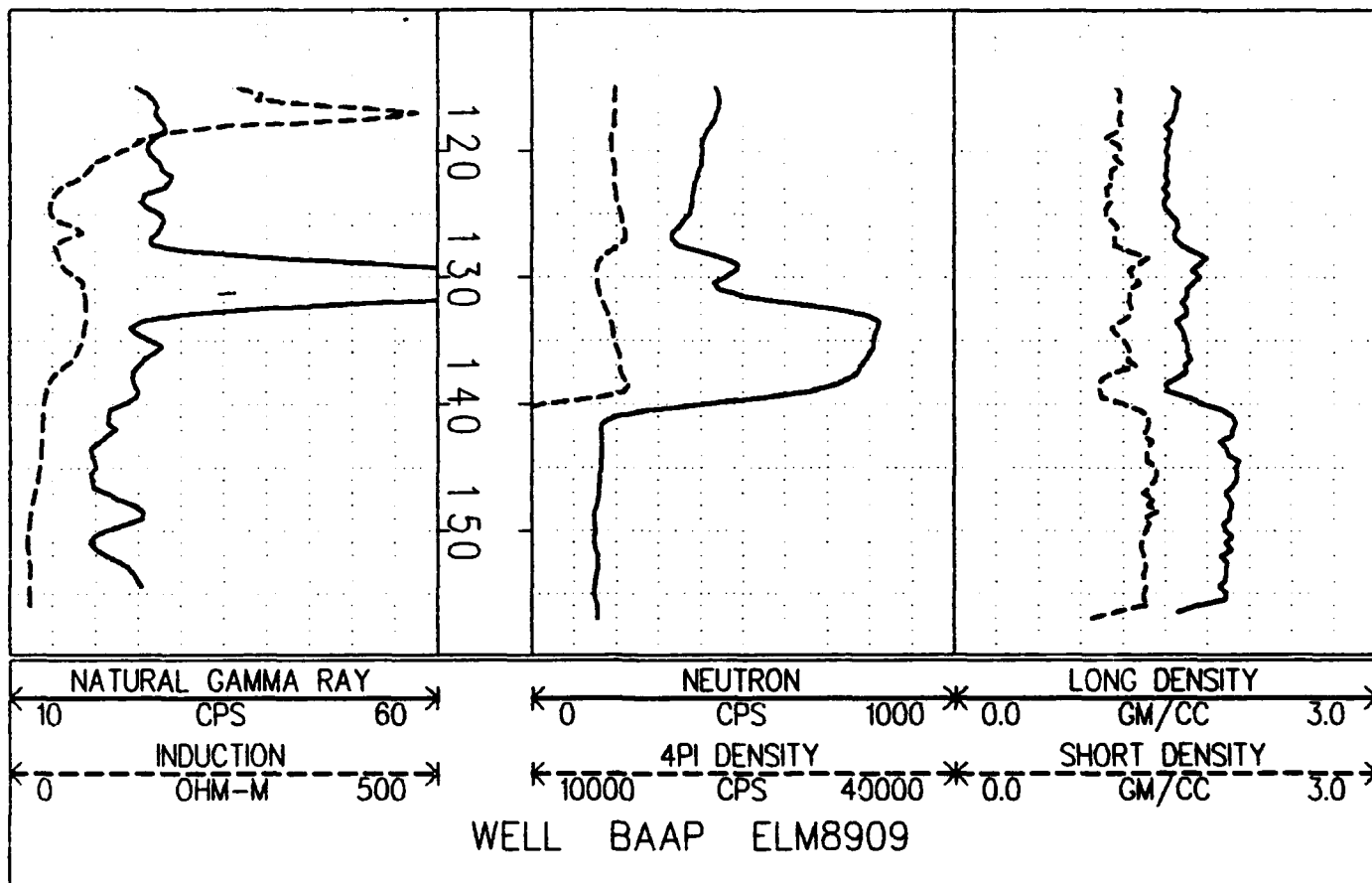


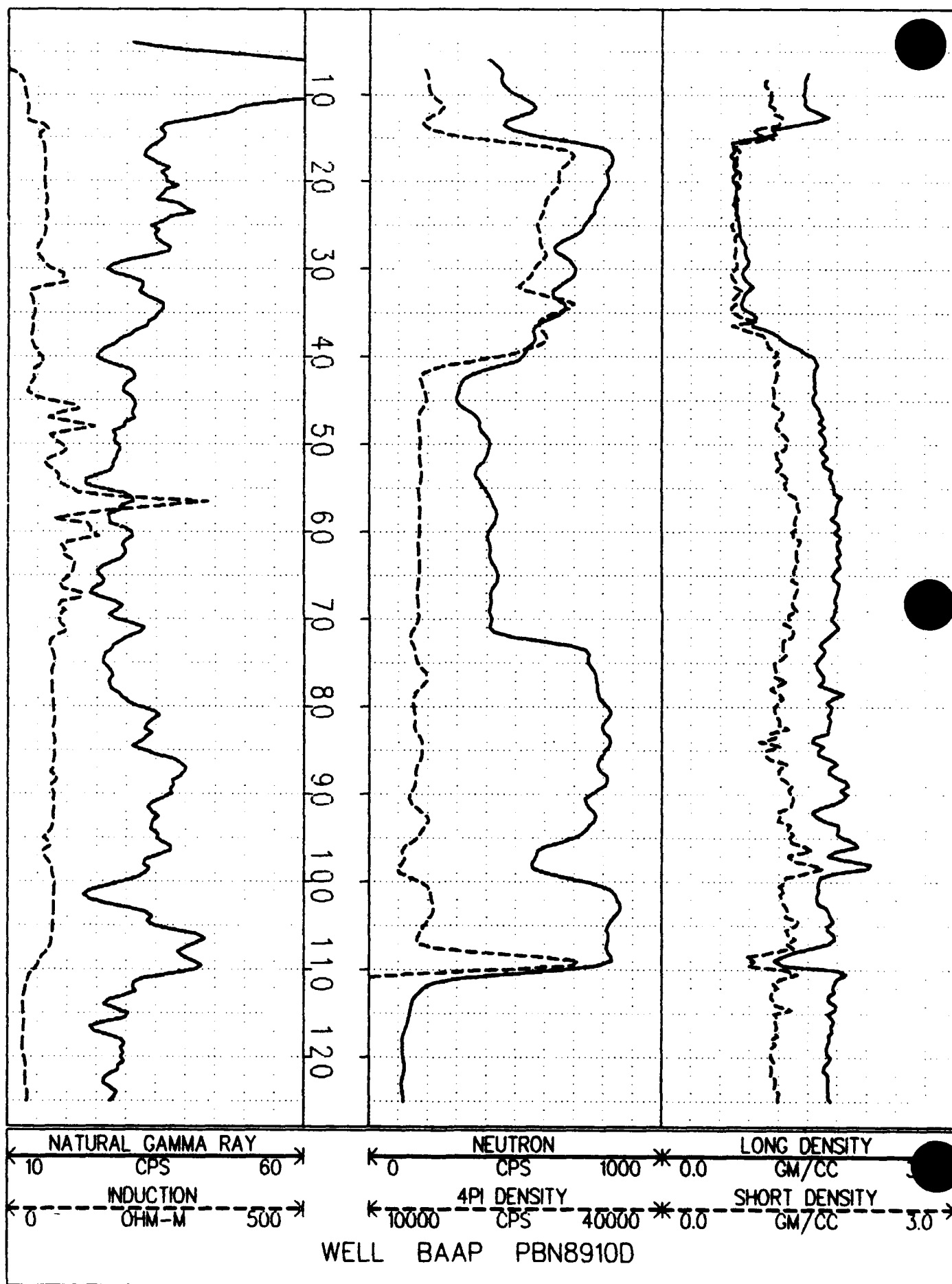


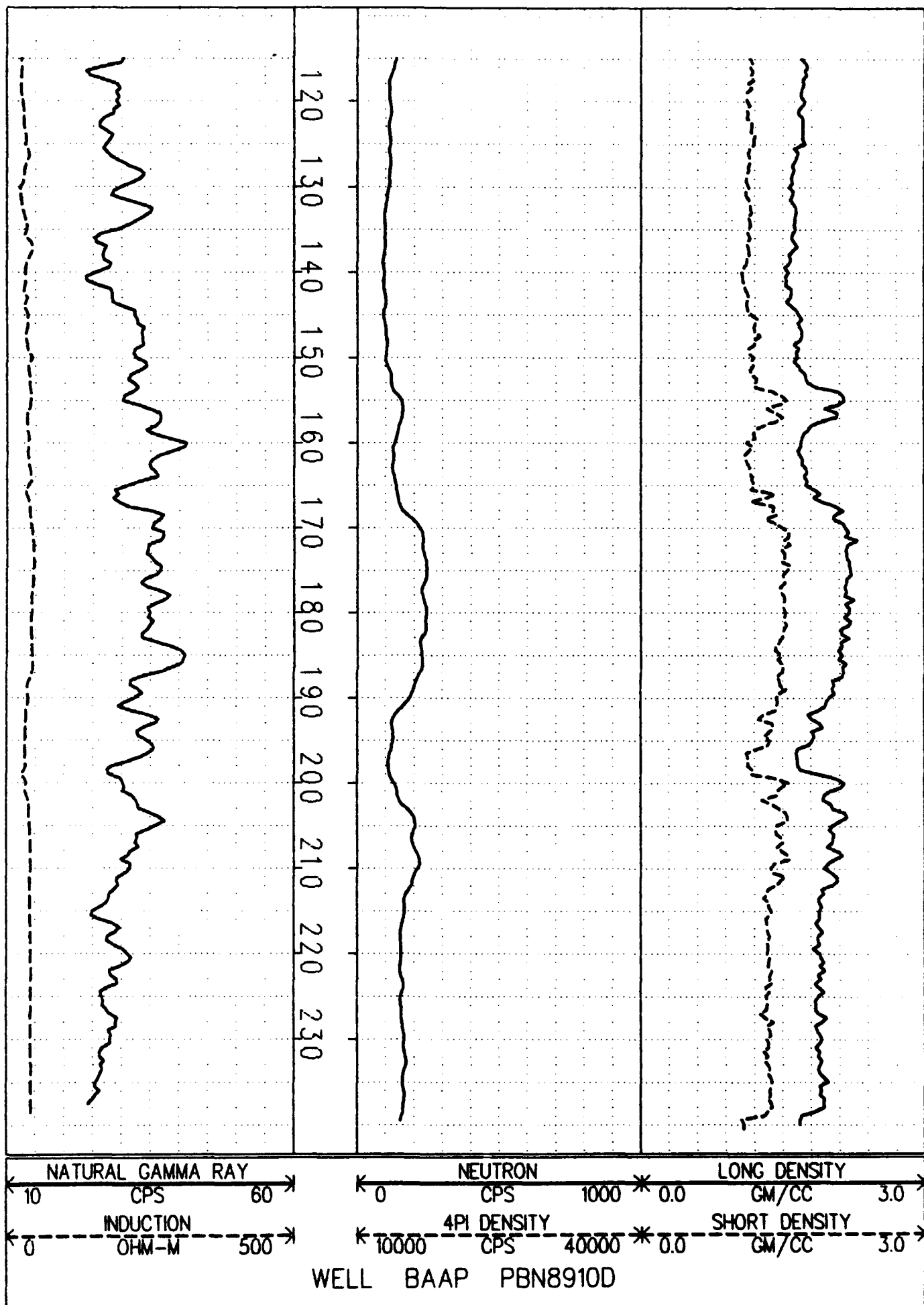


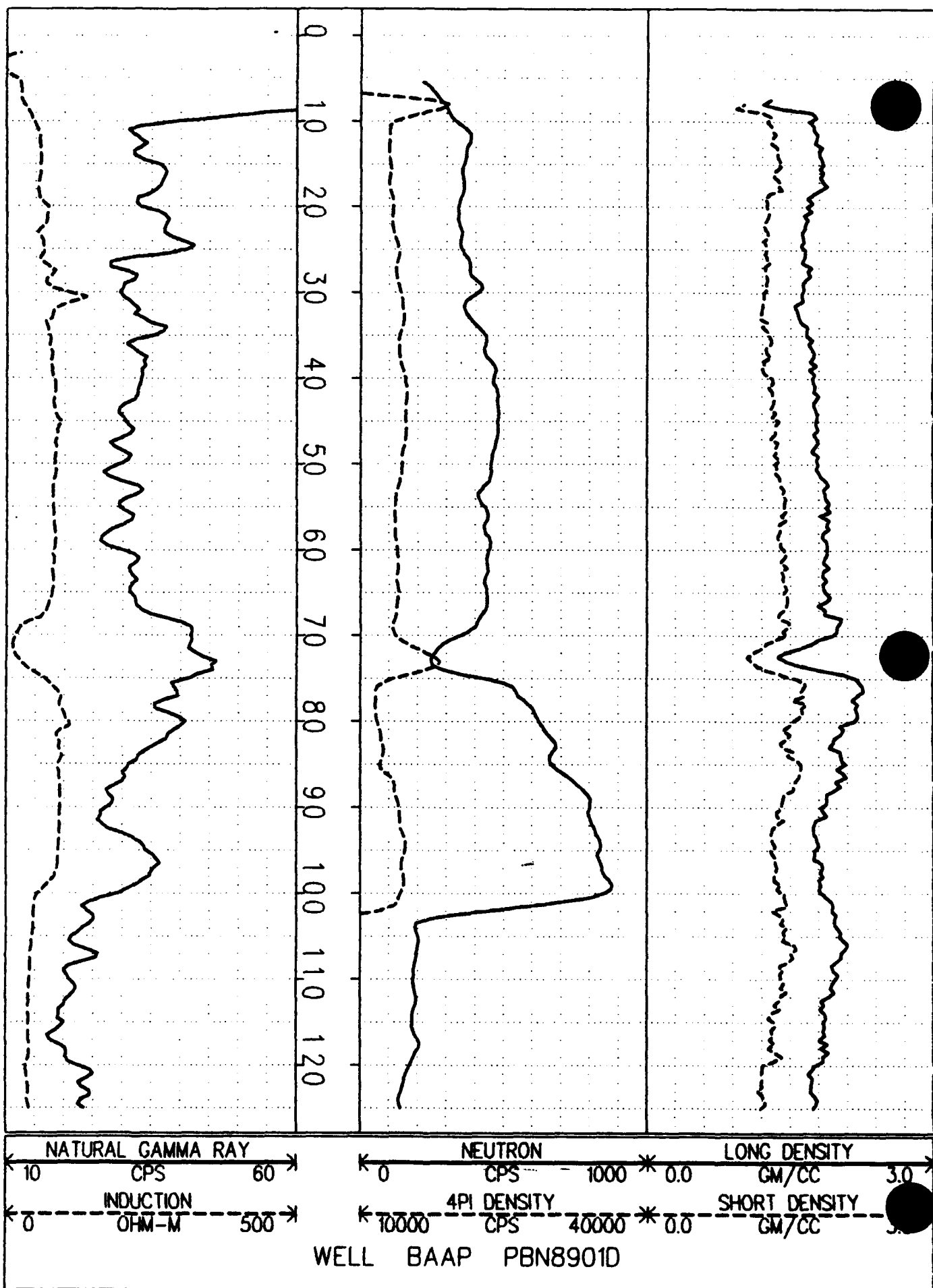


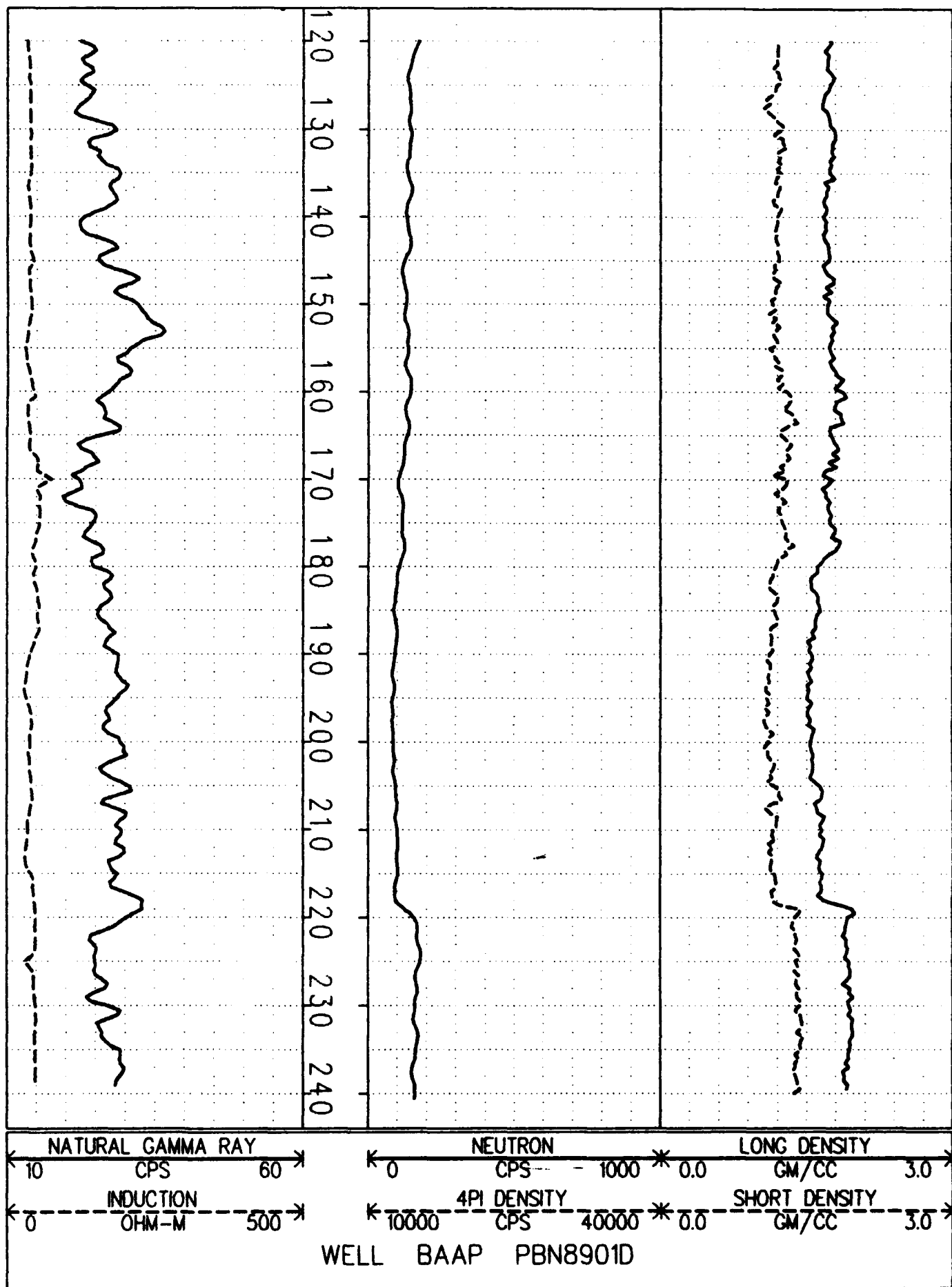


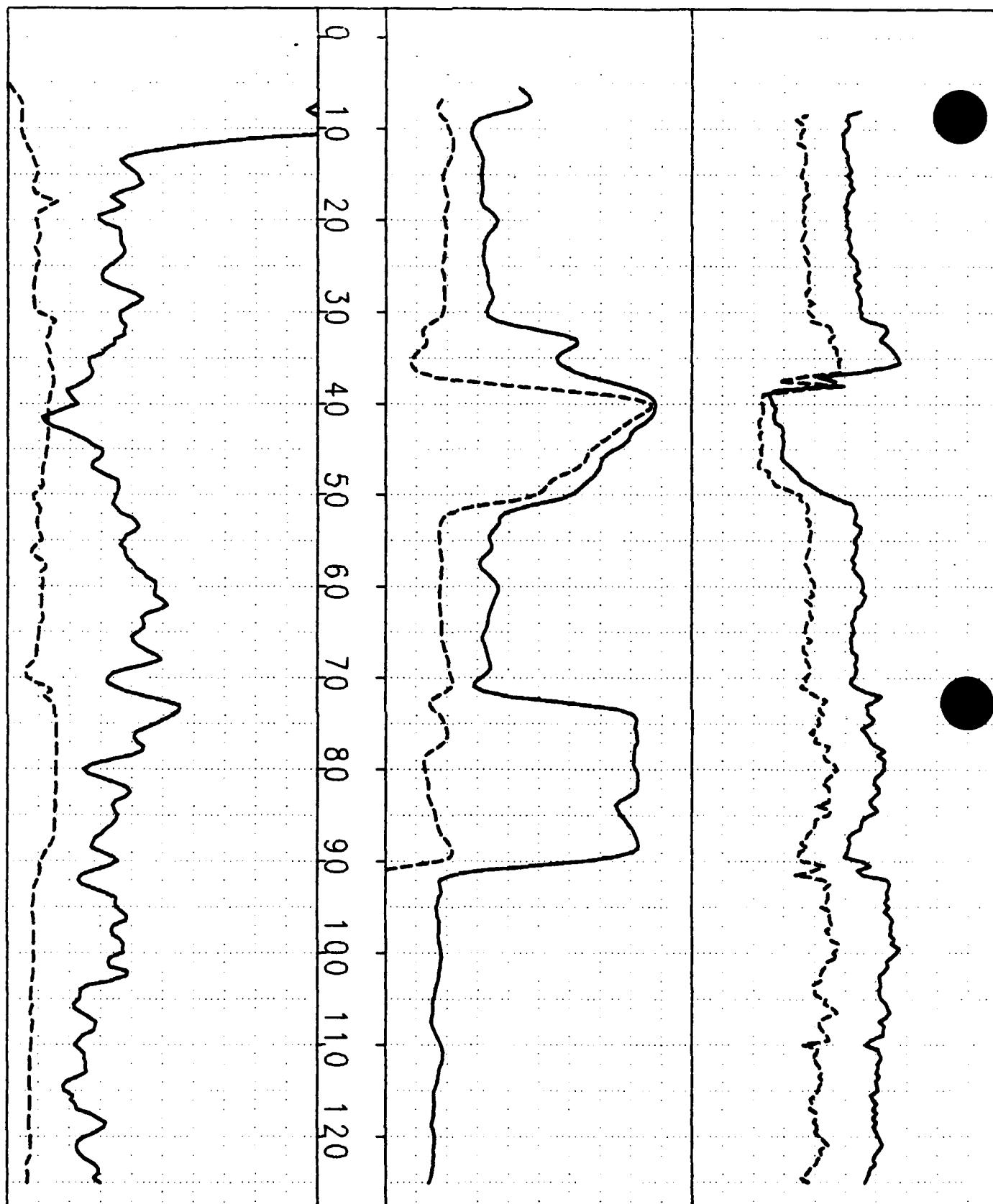




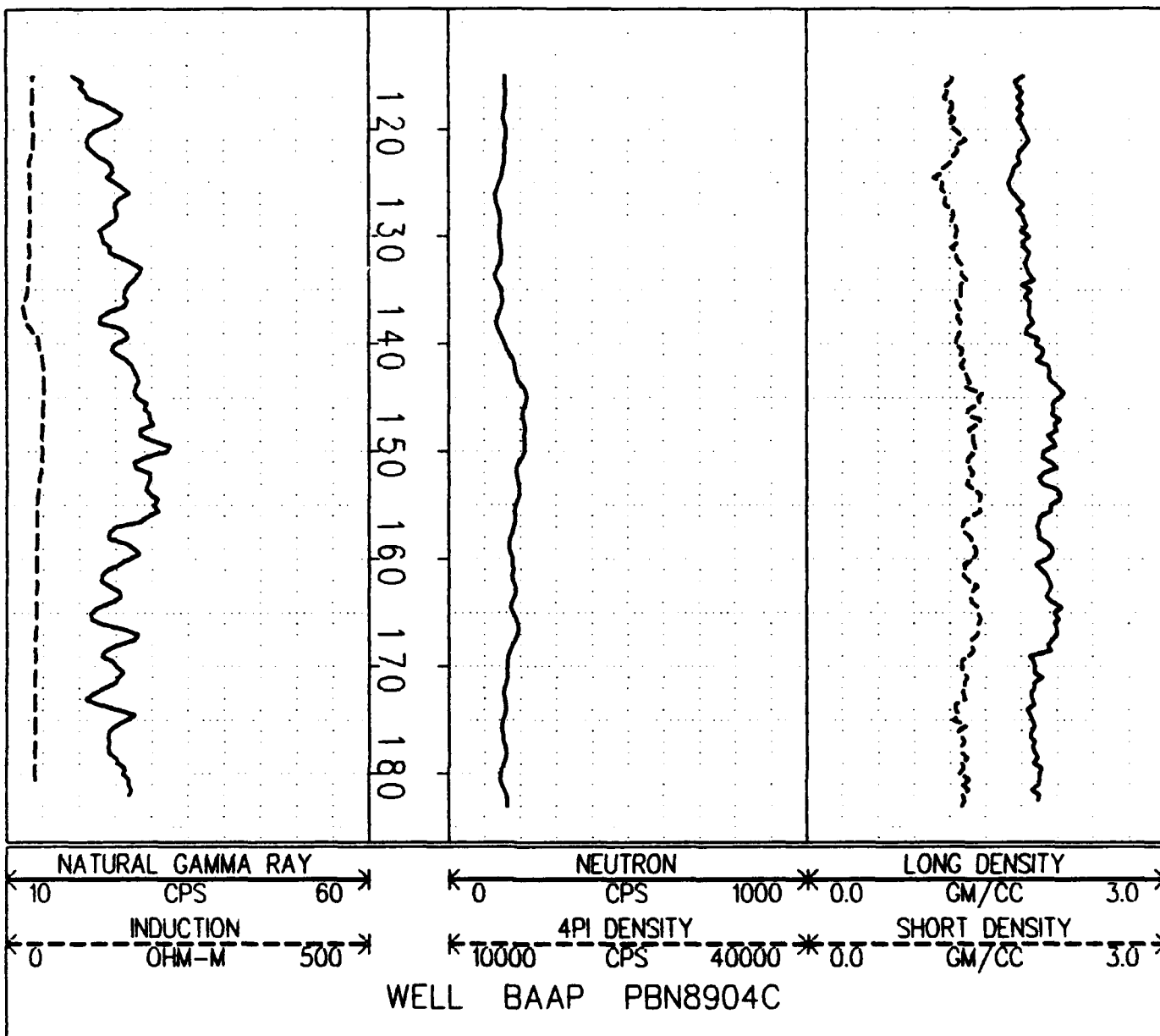


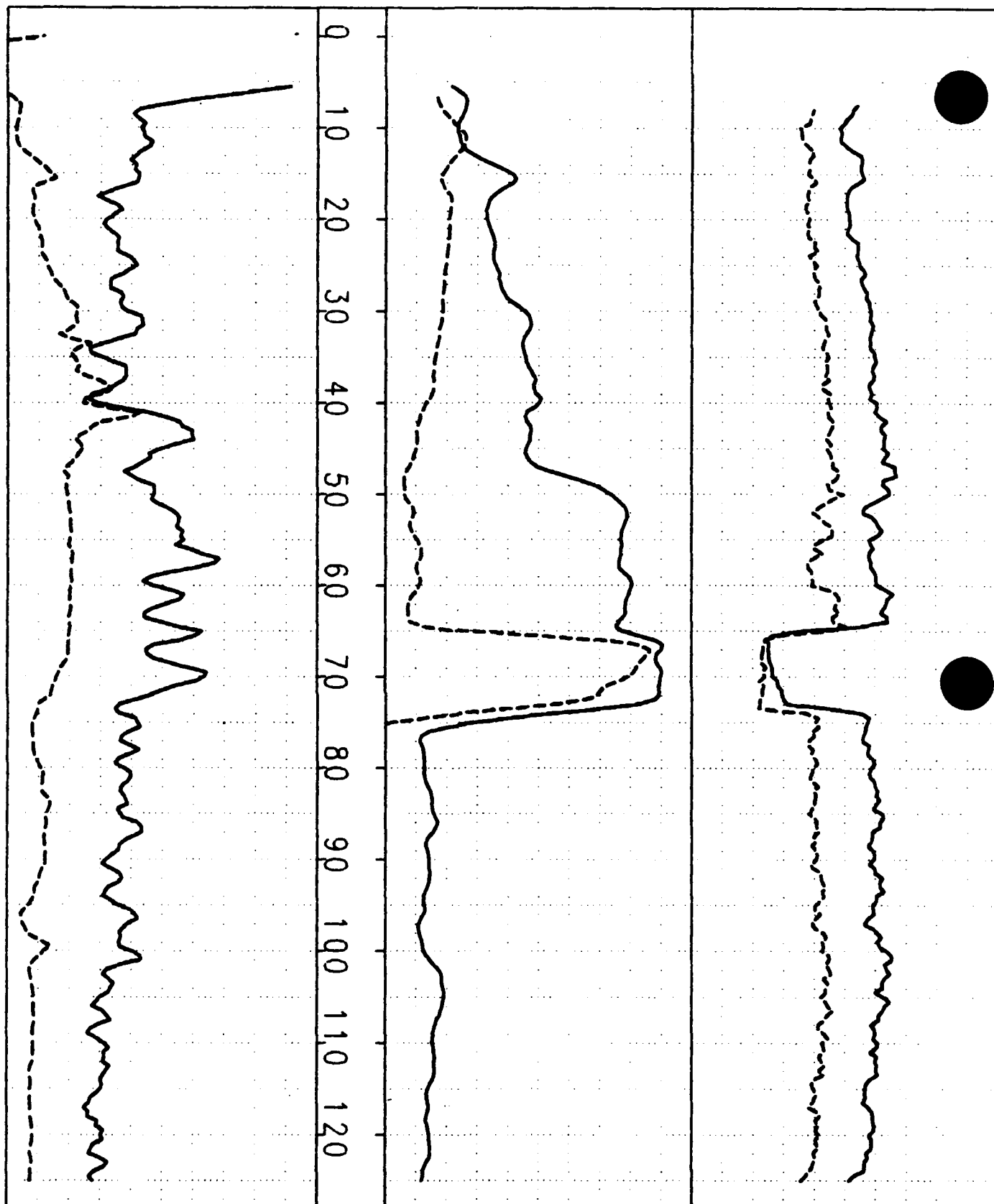






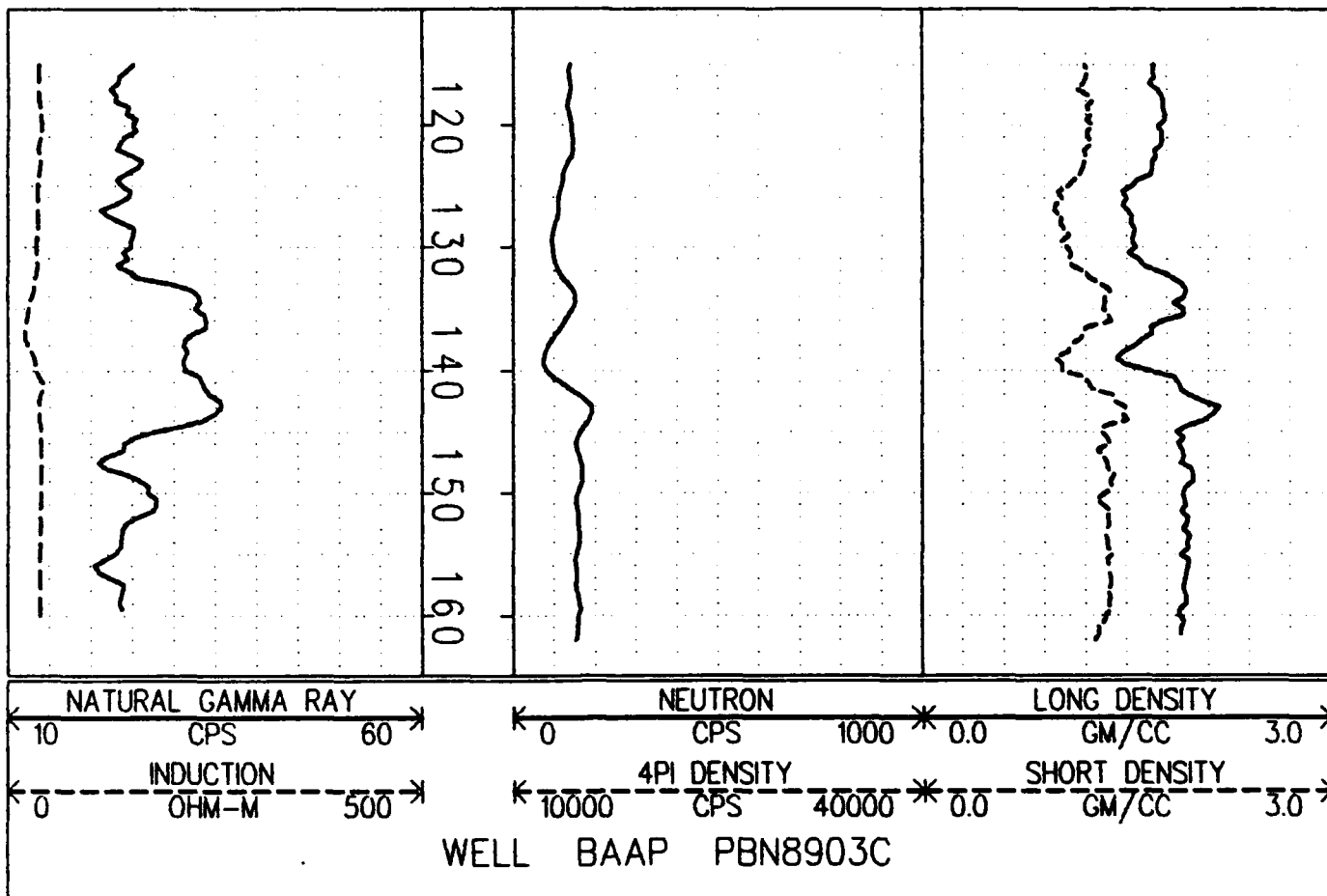
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 INDUCTION
 OHM-M 0 500
 NEUTRON
 CPS 0 1000 *
 4PI DENSITY
 CPS 10000 40000 *
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 GM/CC 0.0 3.0
 SHORT DENSITY
 GM/CC 0.0 3.0
 WELL BAAP PBN8904C

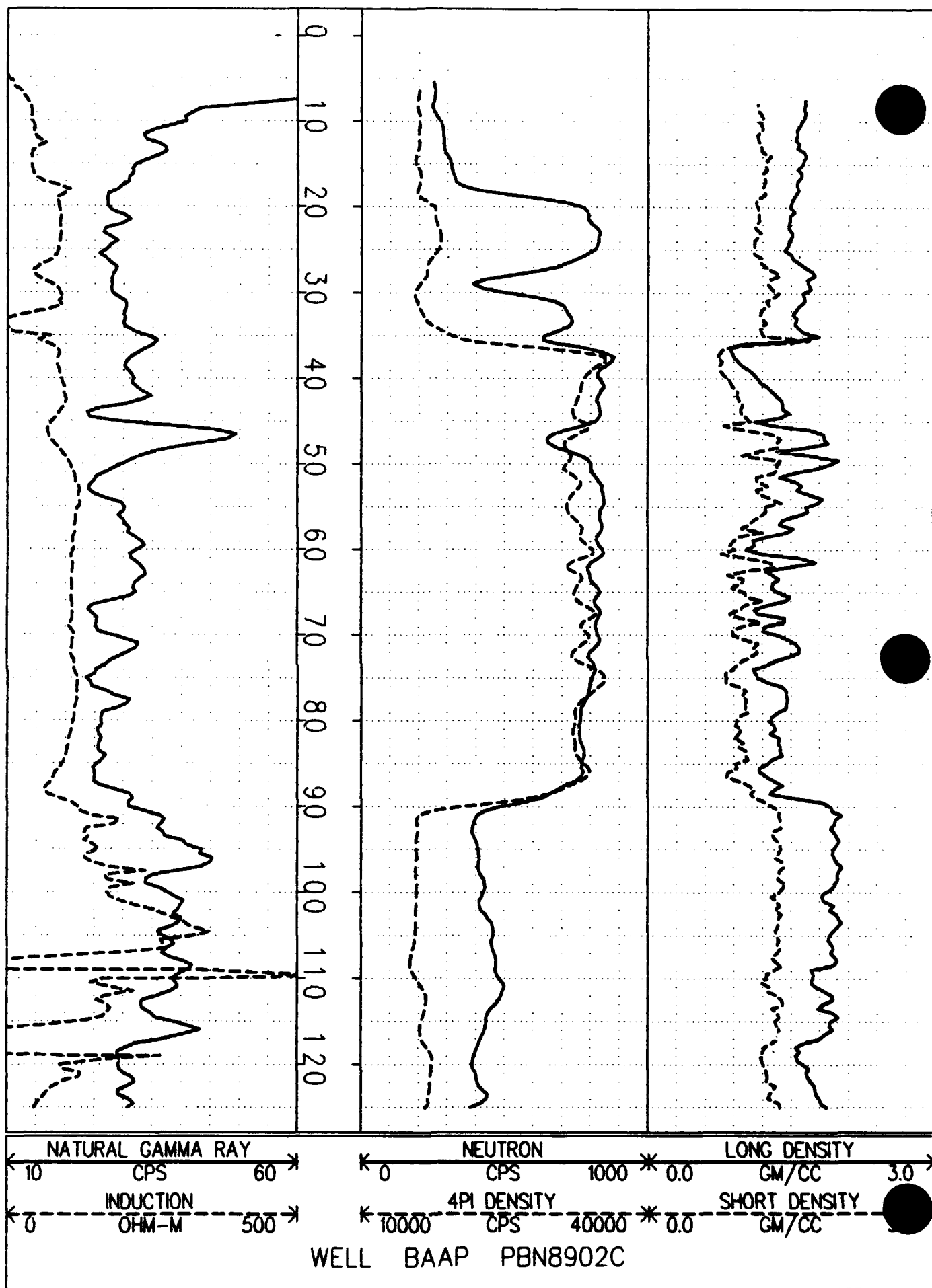


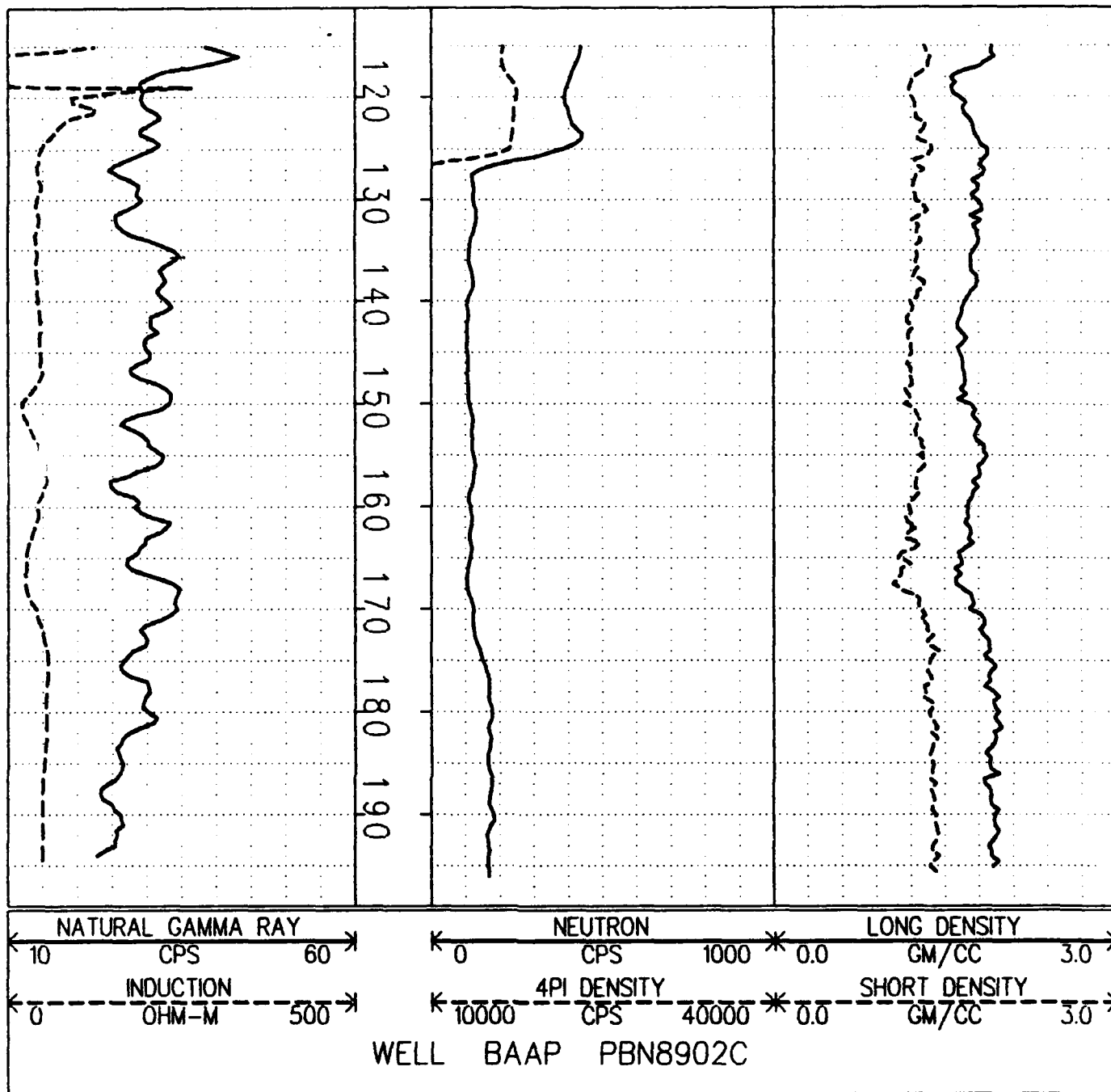


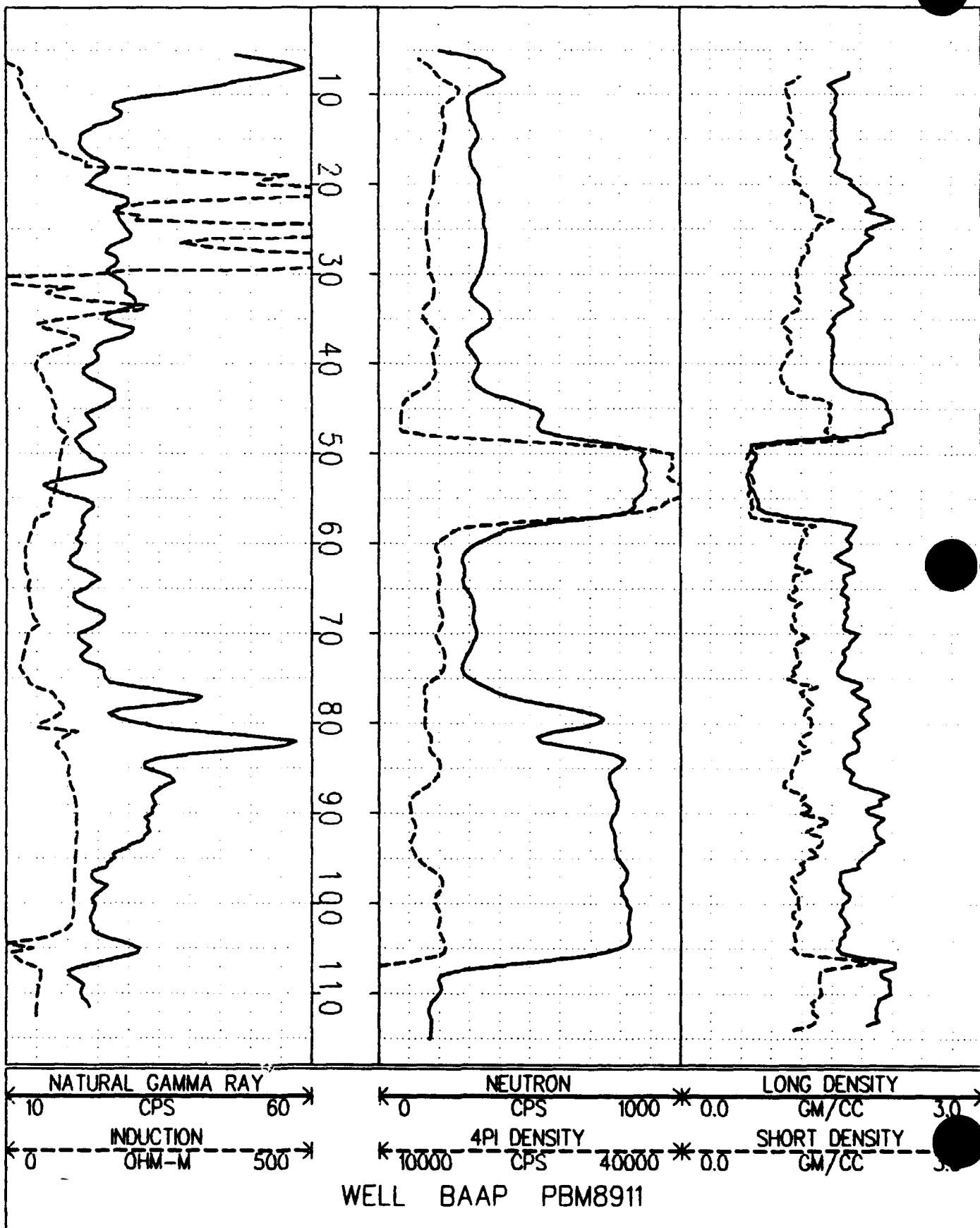
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INDUCTION OHM-M 0 500
NEUTRON CPS 0 1000
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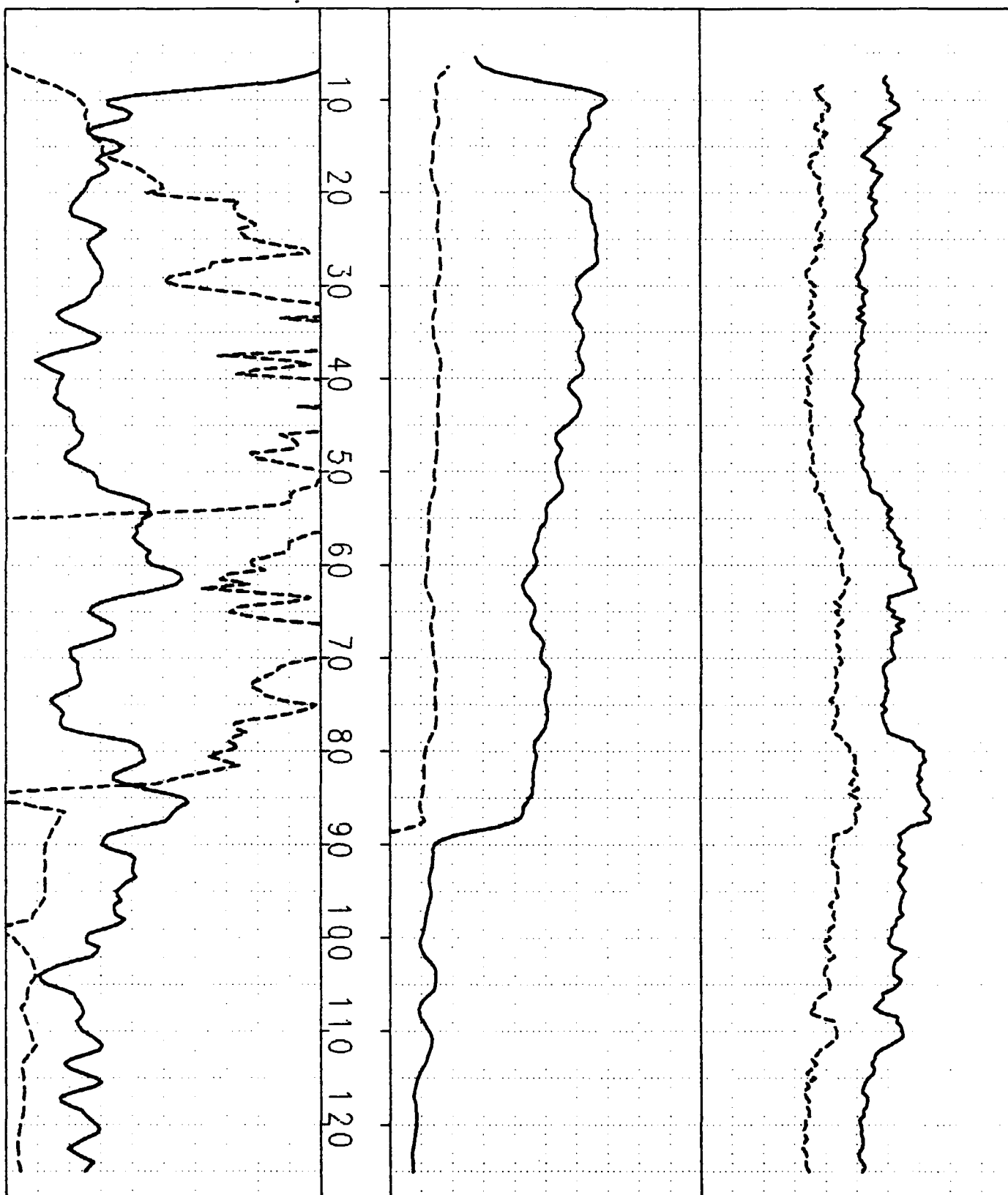
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NATURAL GAMMA RAY
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INDUCTION
OHM-M
0 500

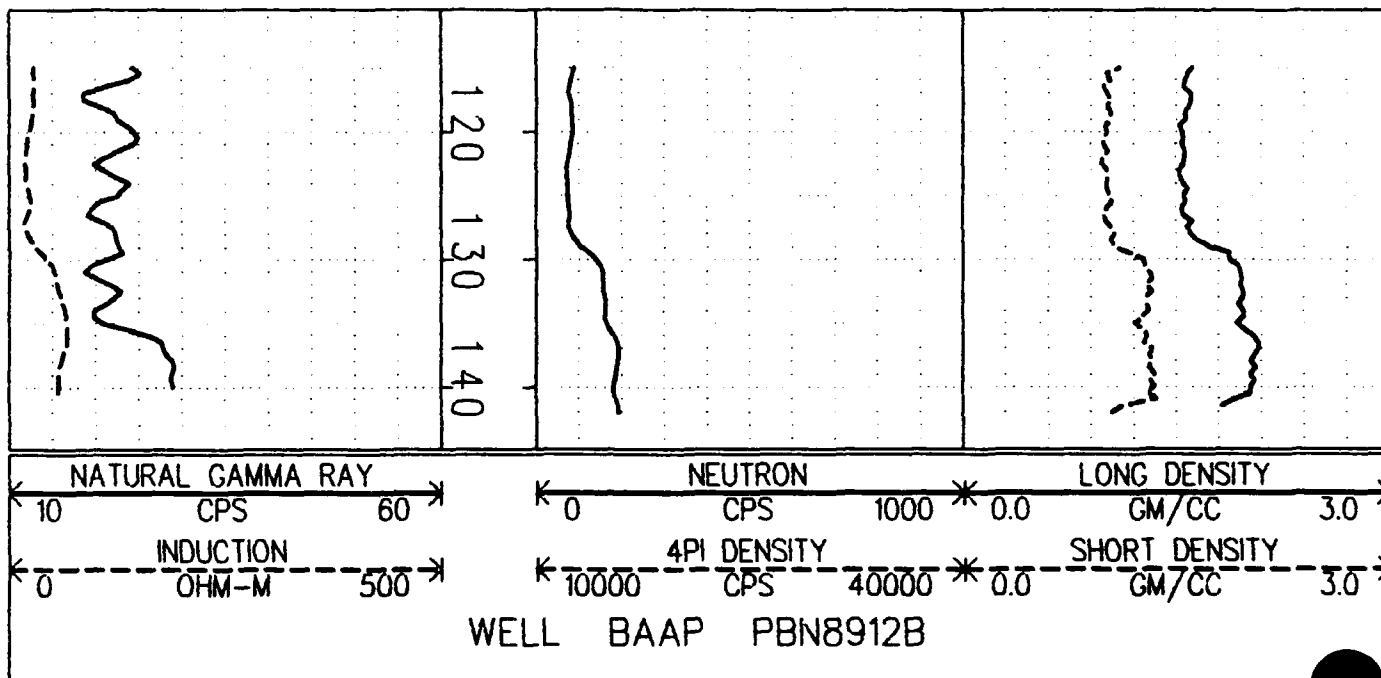
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CPS
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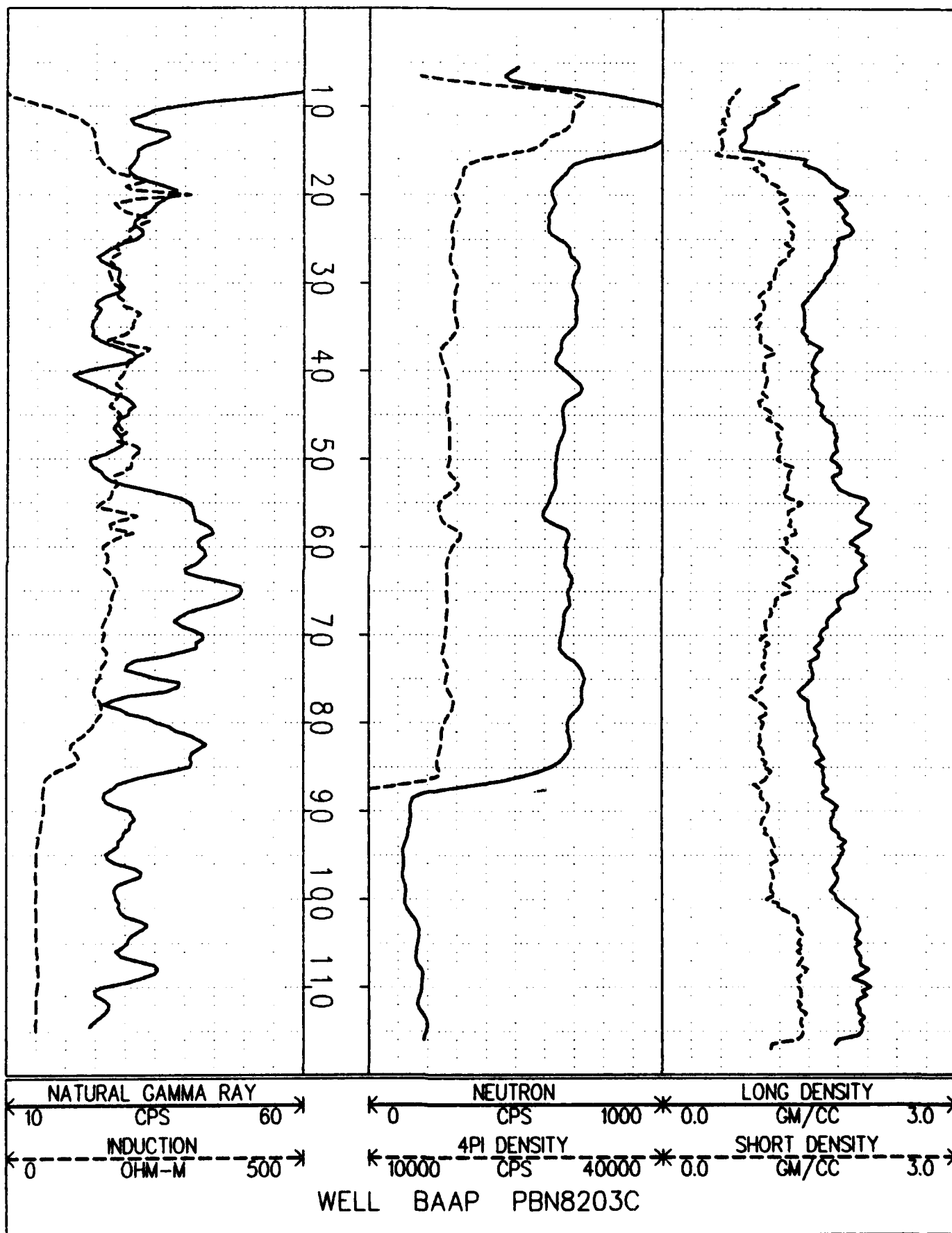
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CPS
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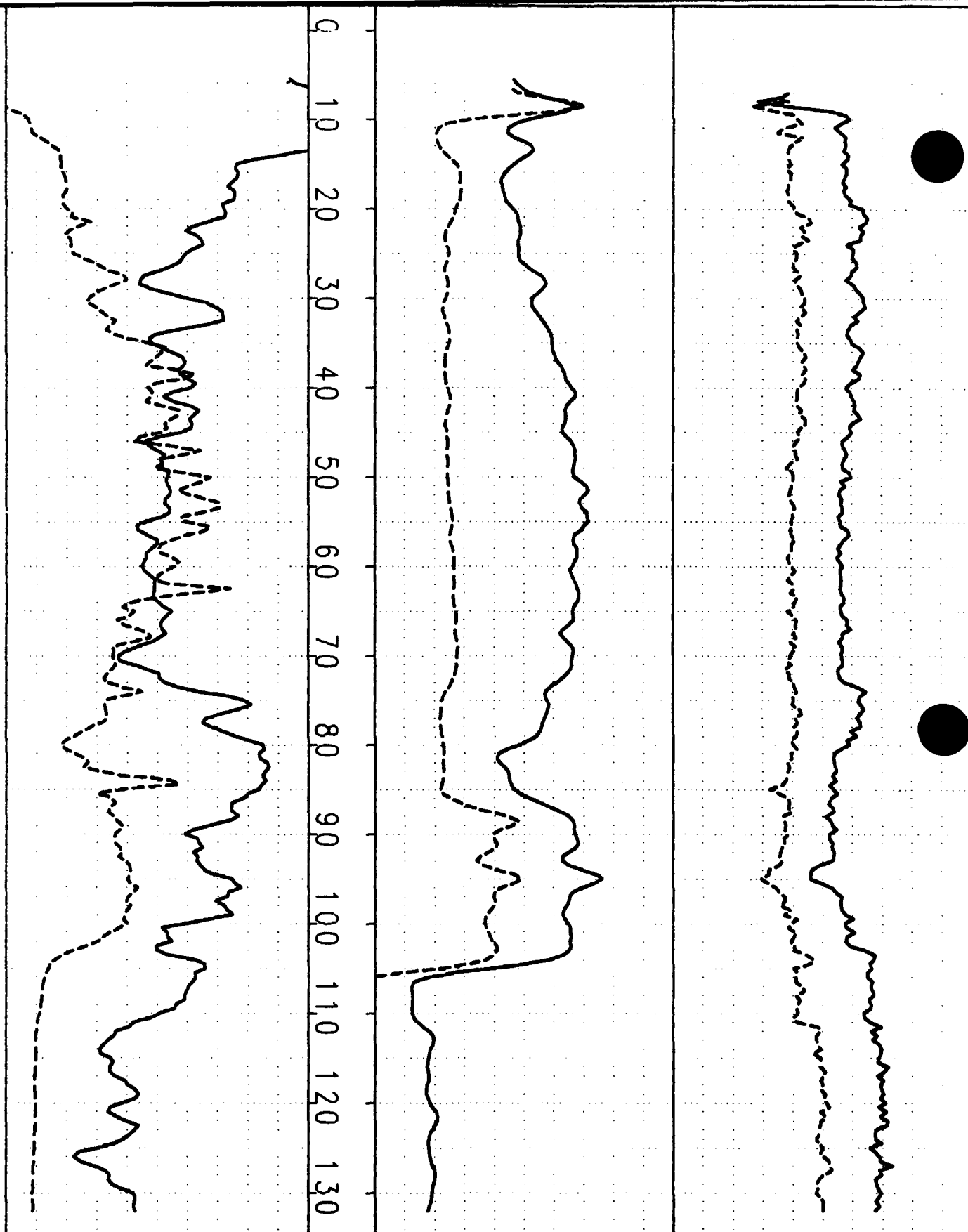
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GM/CC
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SHORT DENSITY
GM/CC
0.0 3.0

WELL BAAP PBN8912B







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INDUCTION
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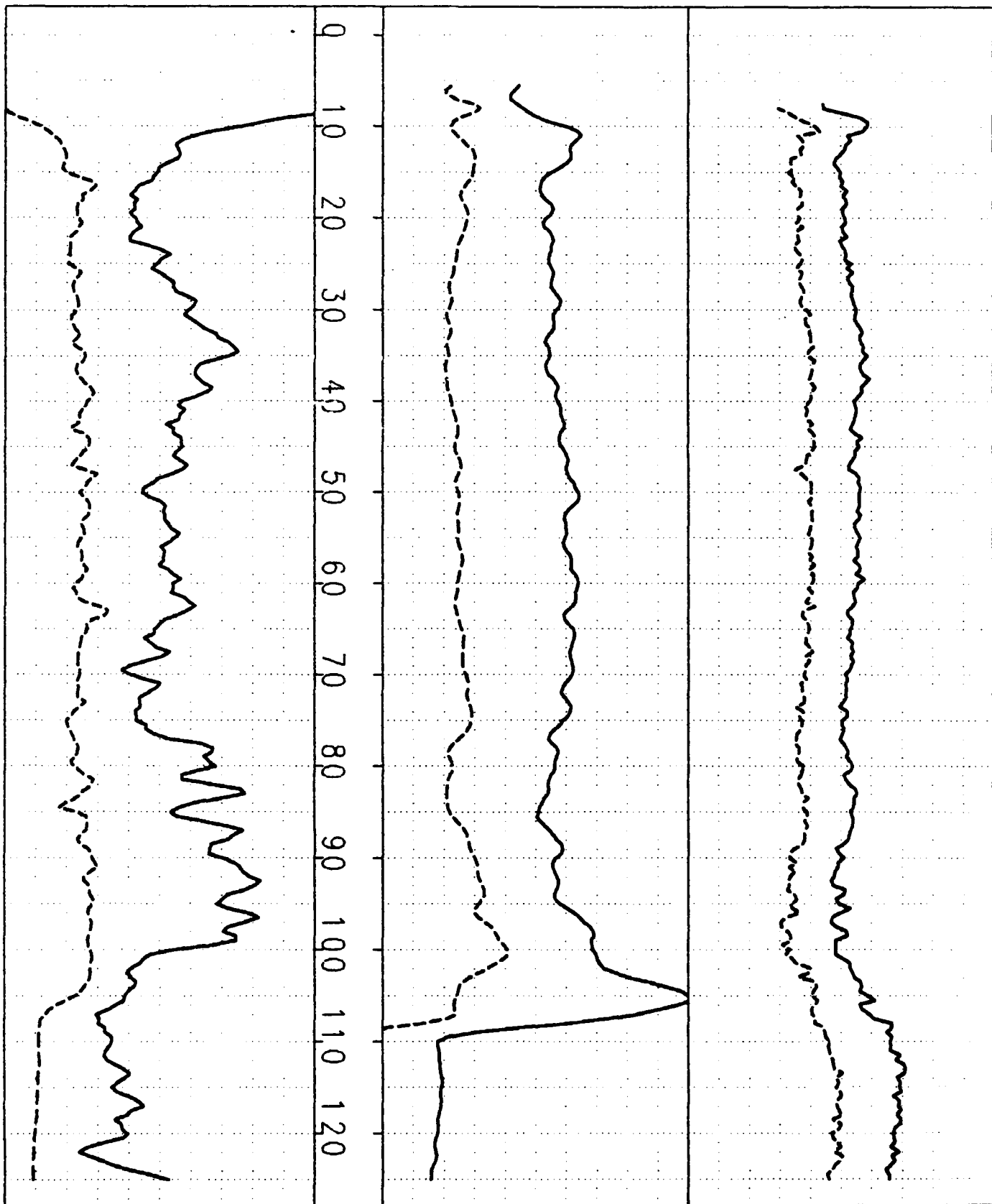
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4PI DENSITY
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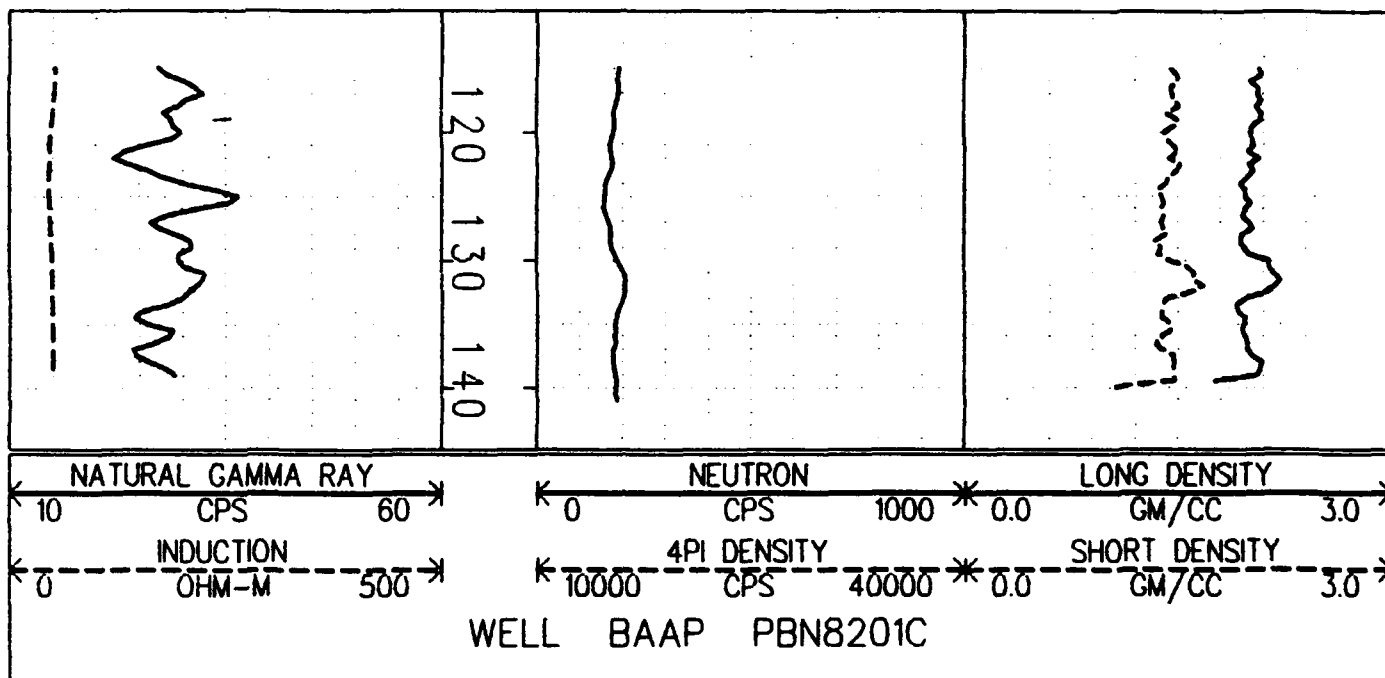
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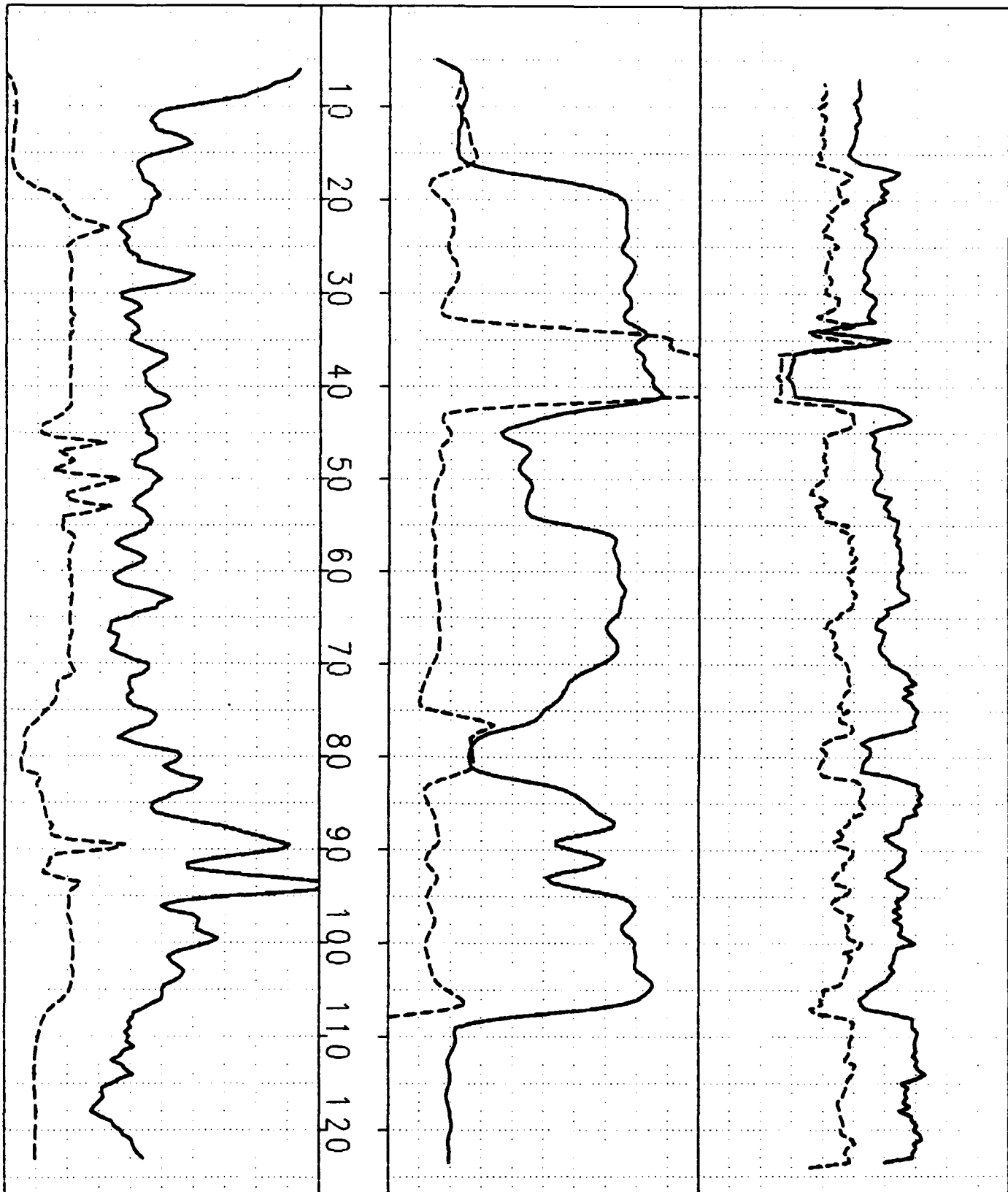
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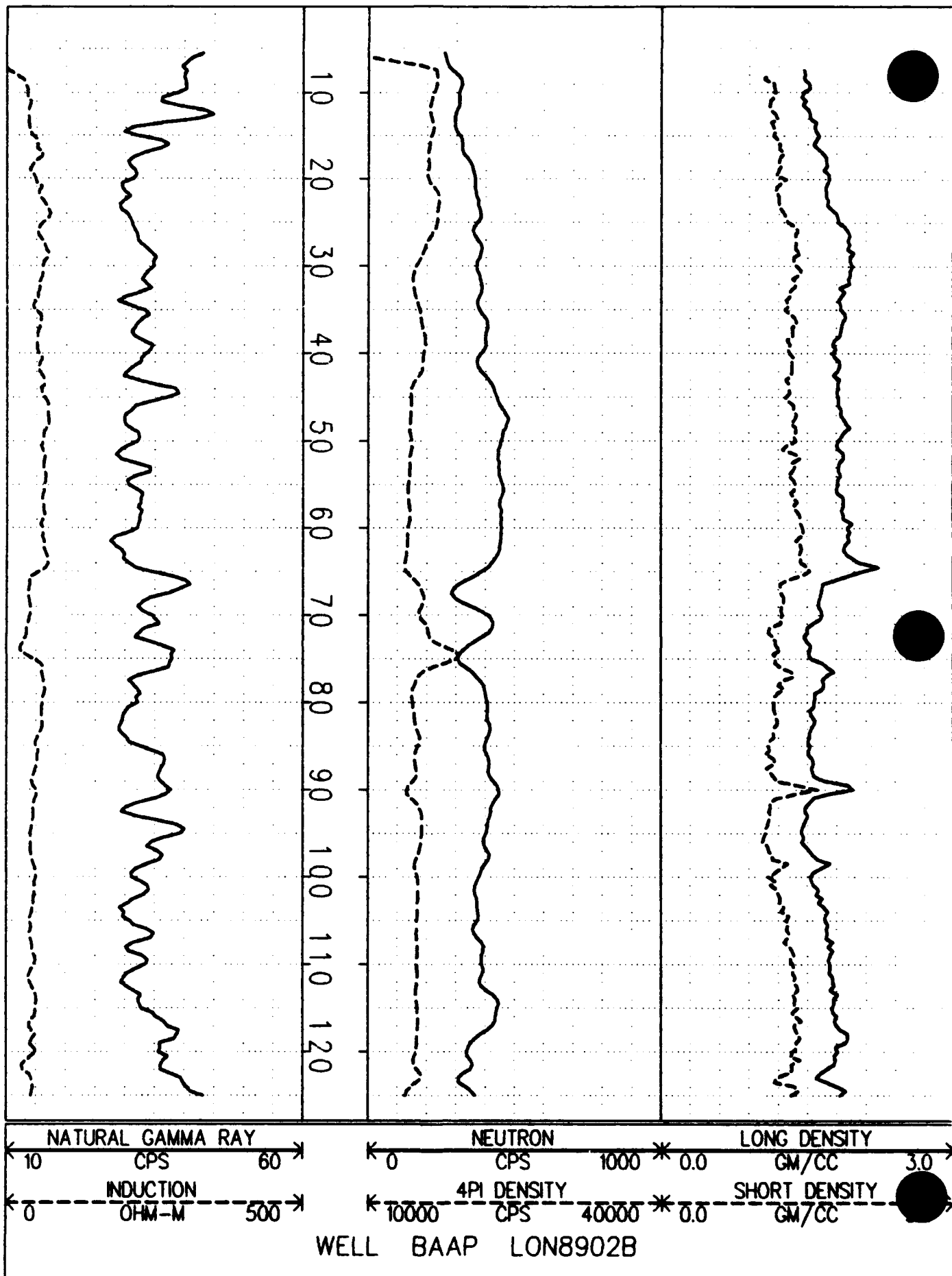


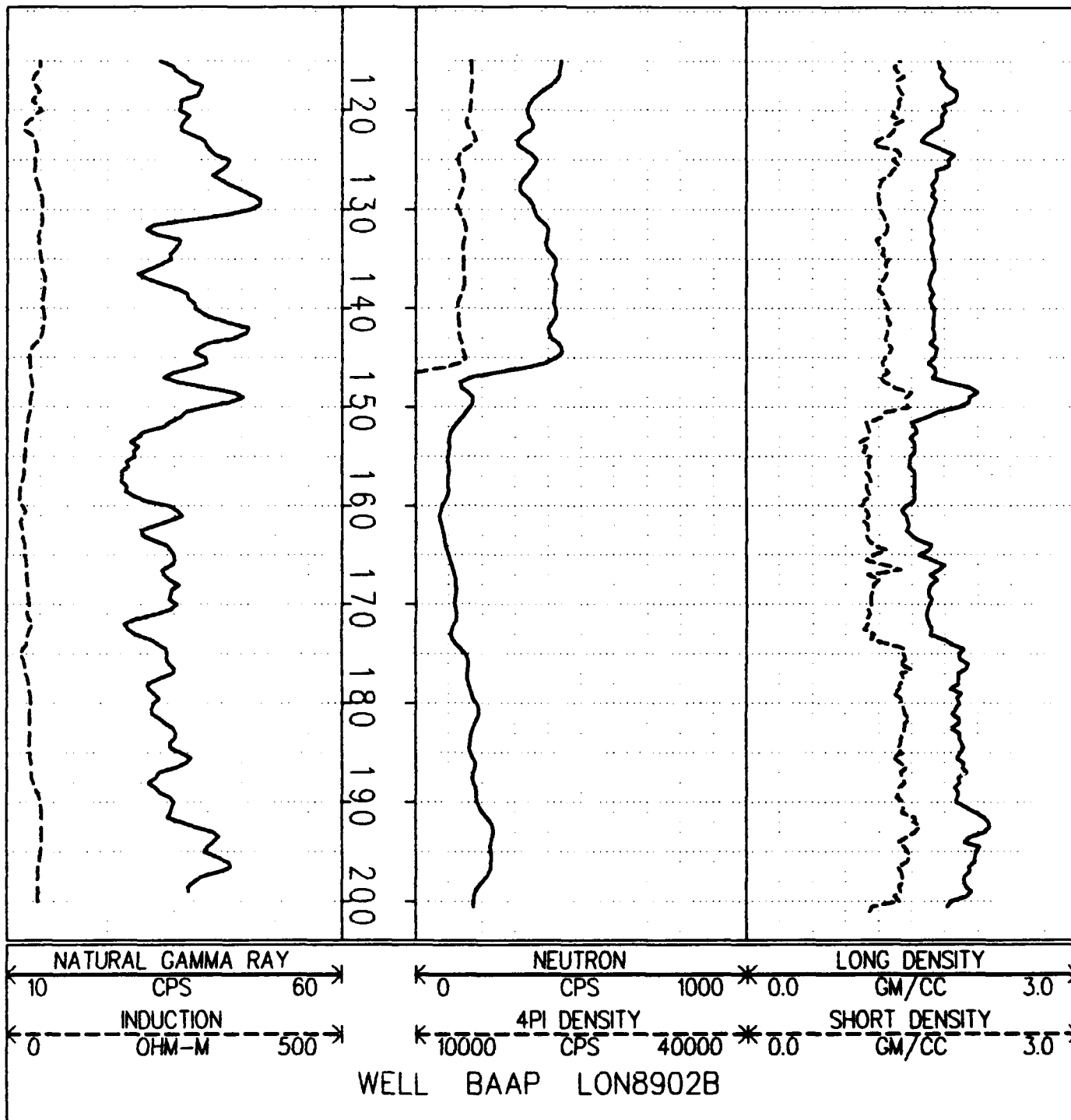
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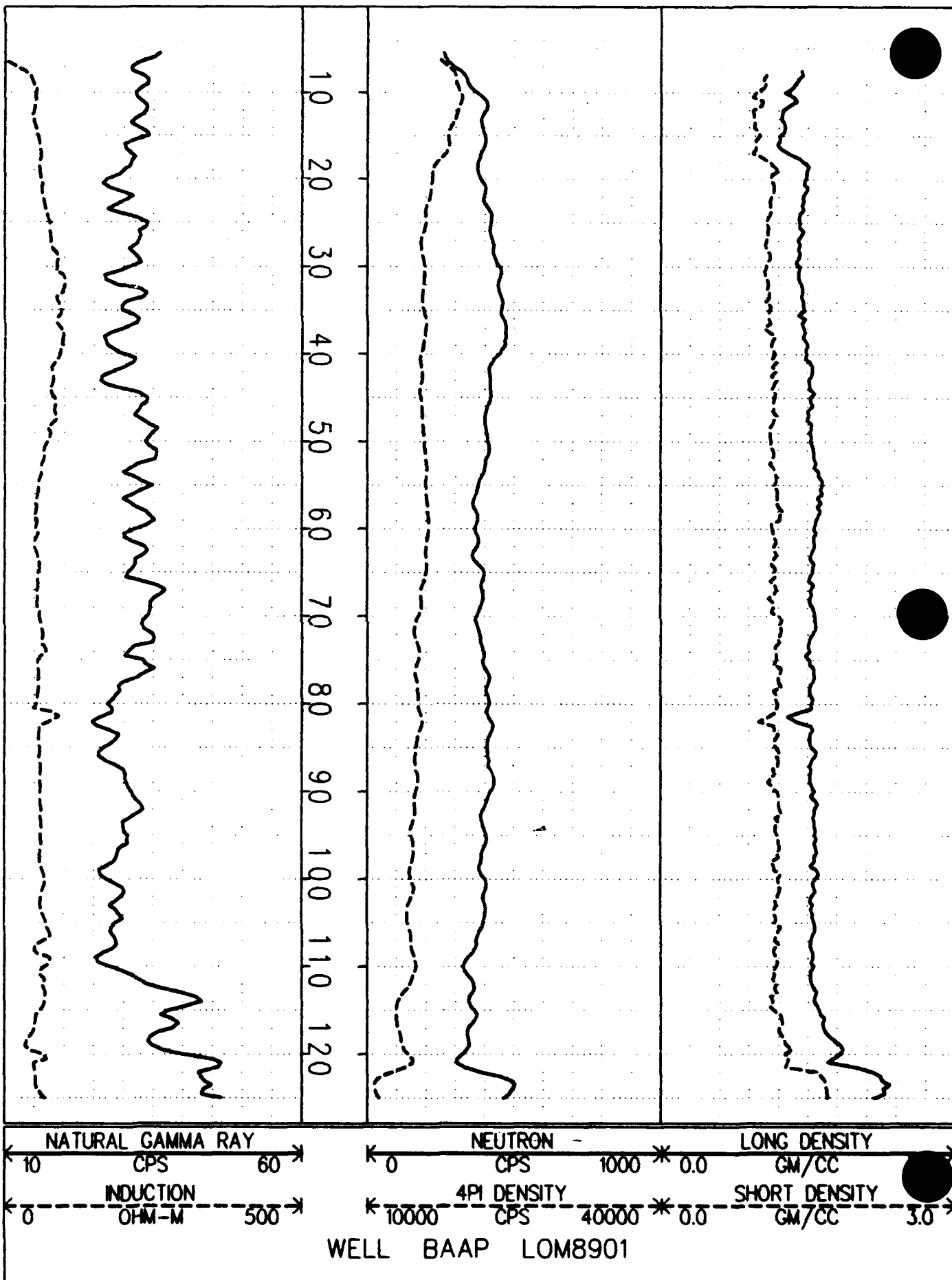


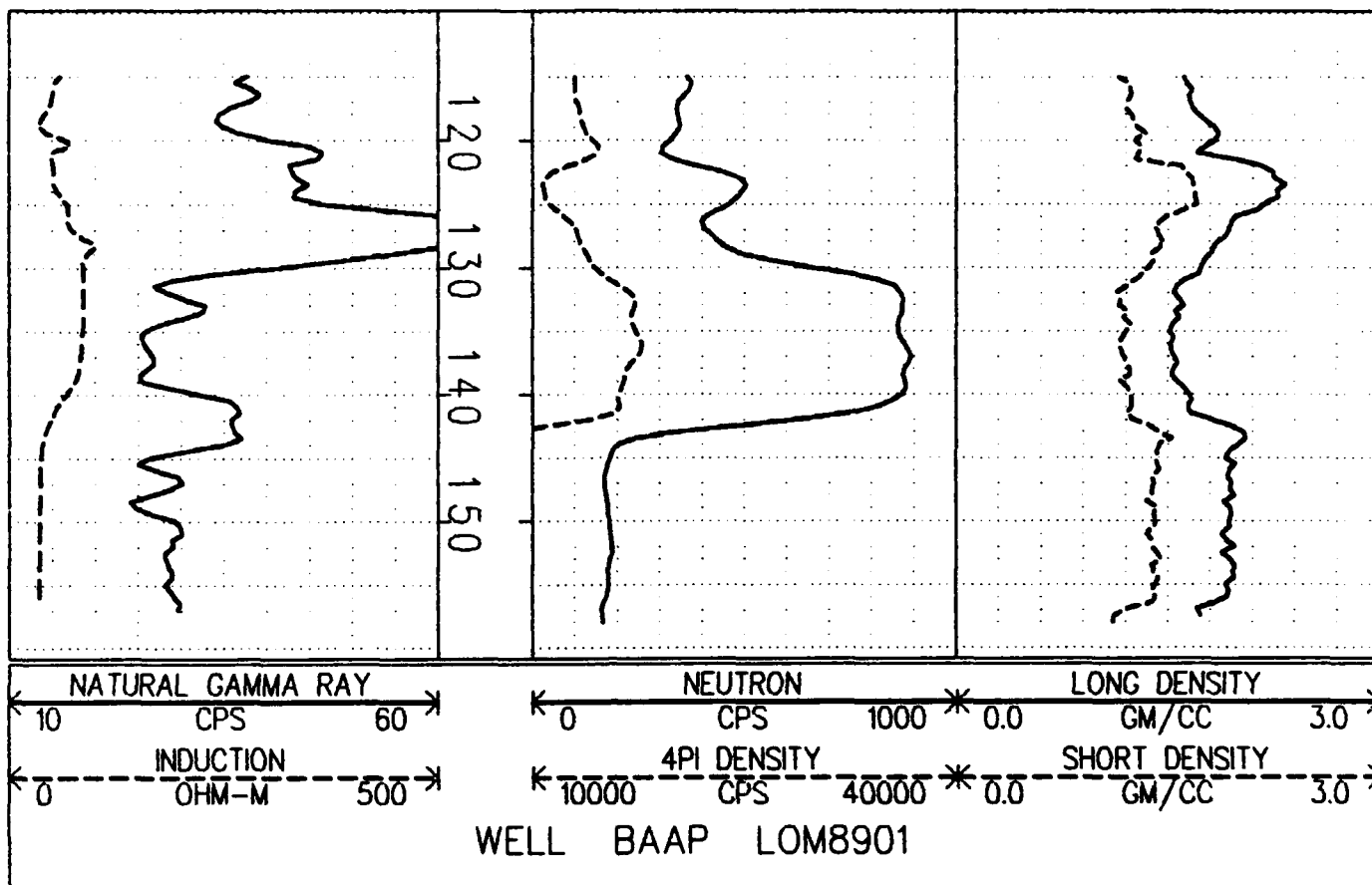


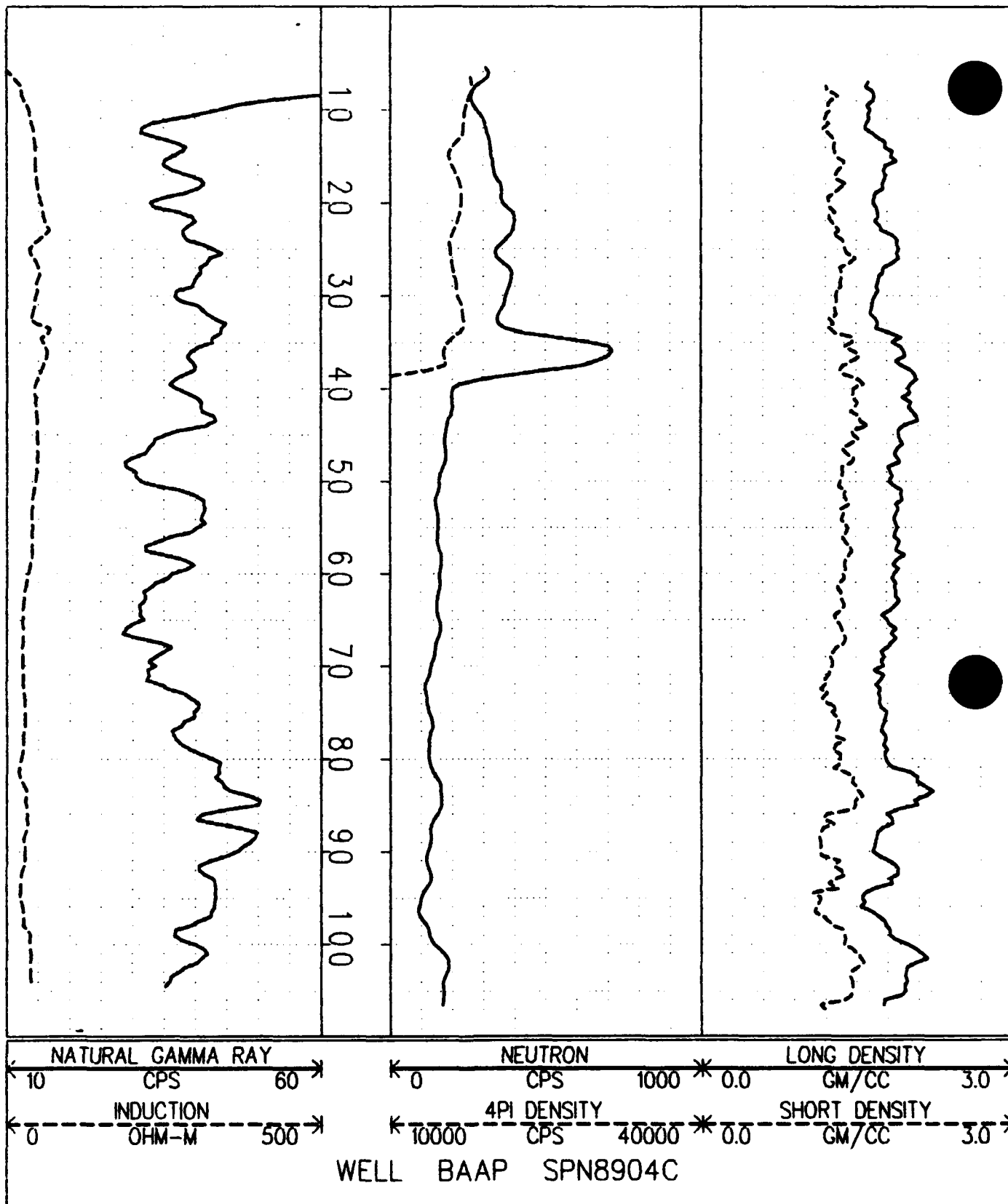
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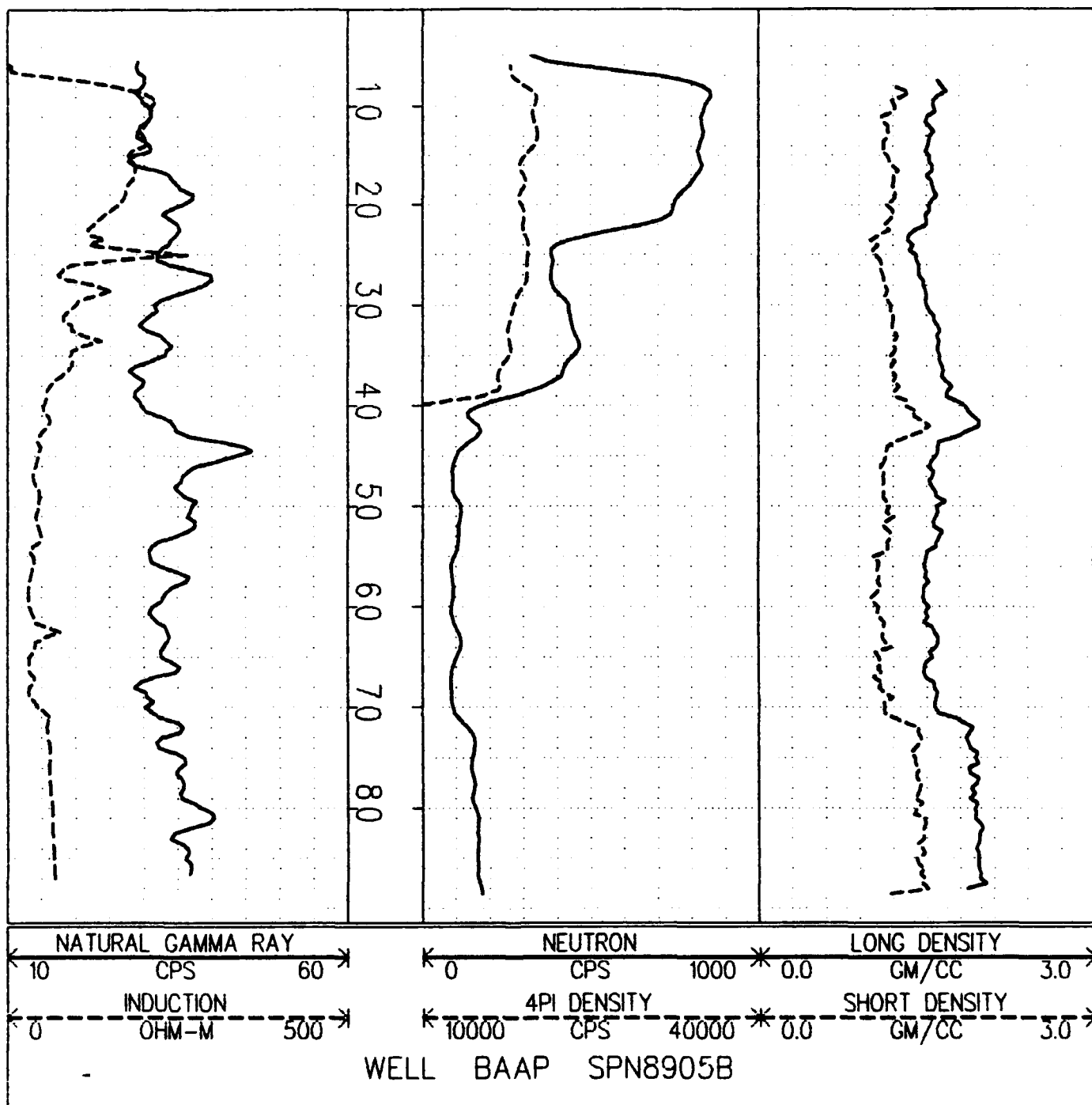


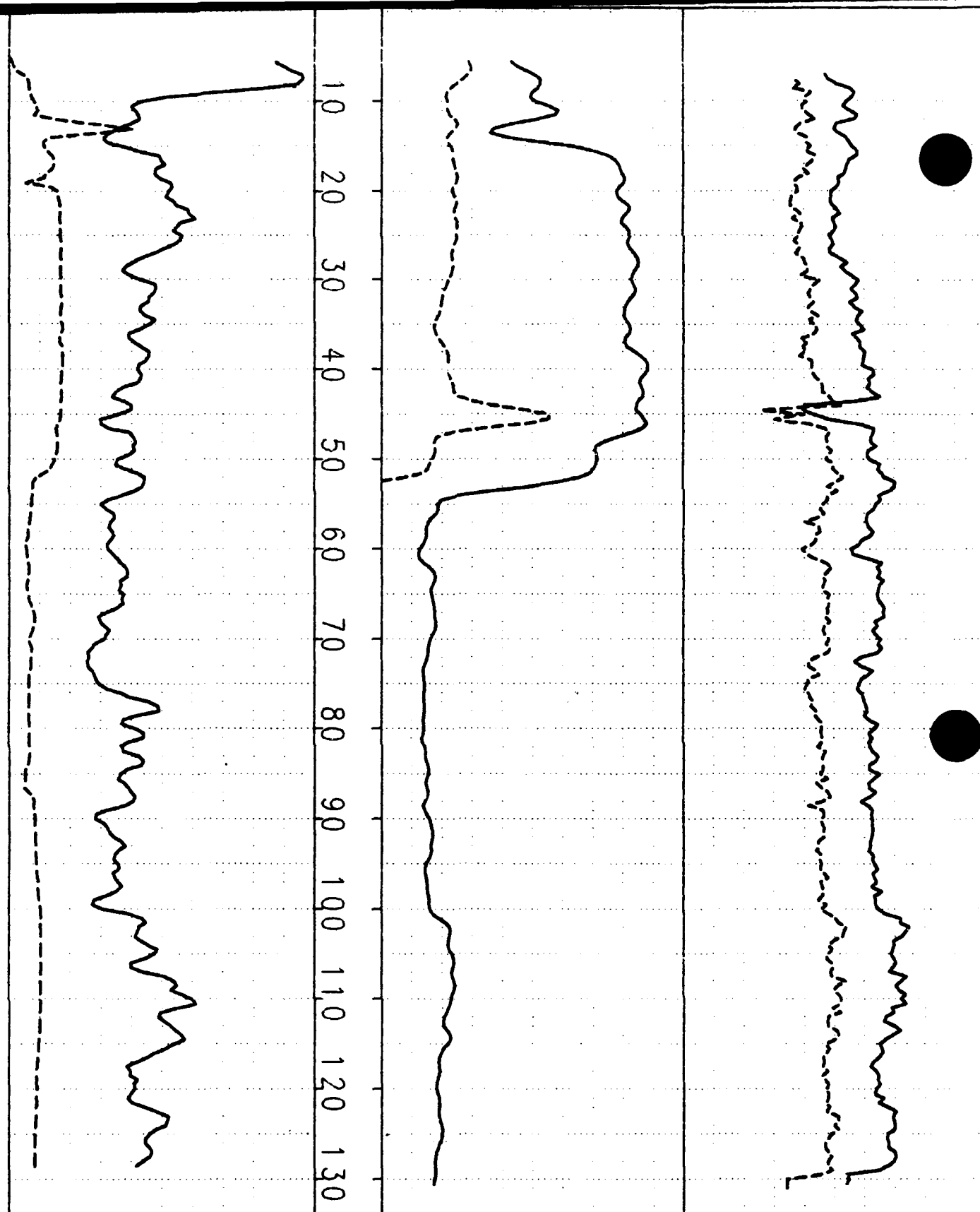






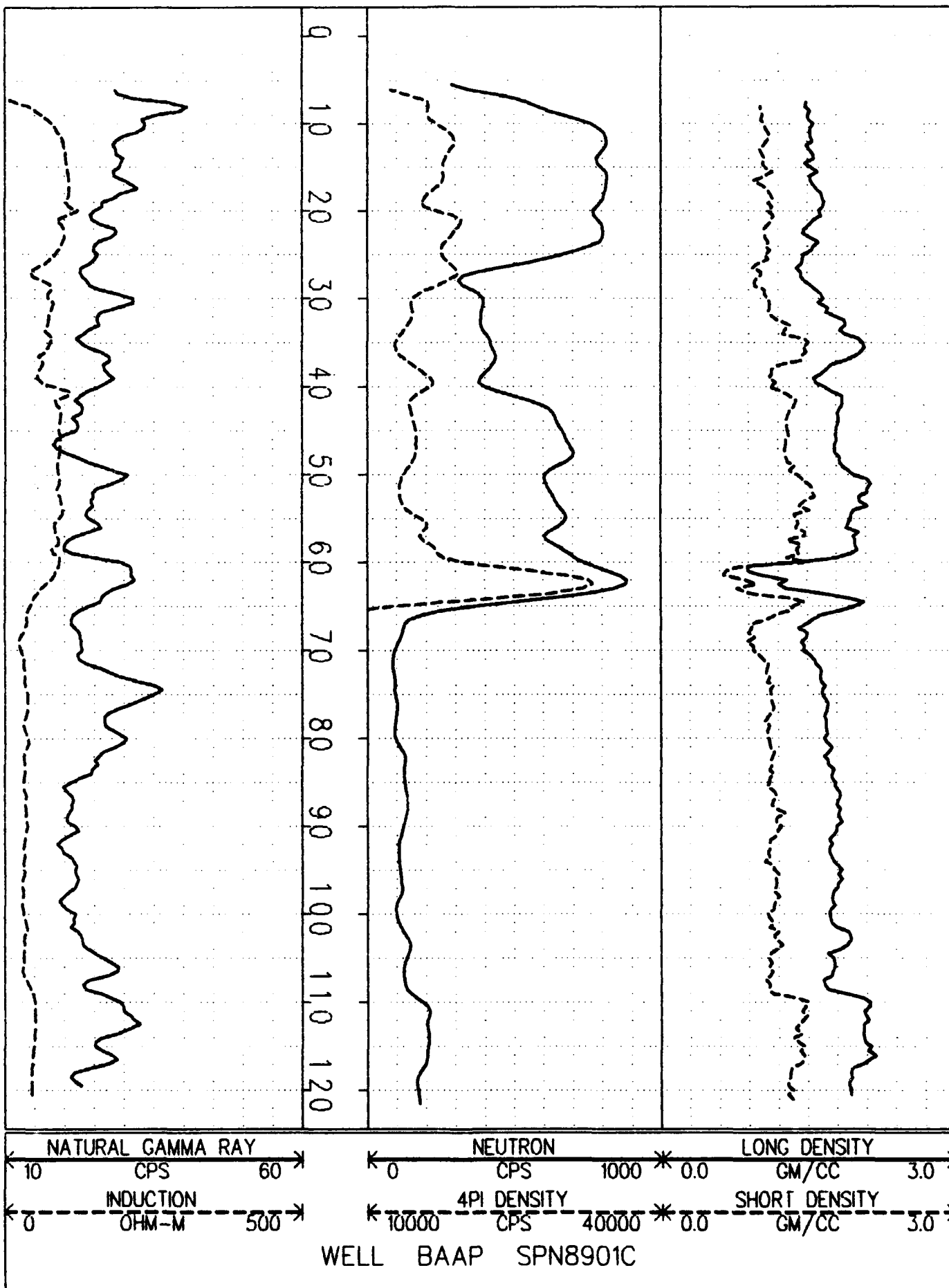


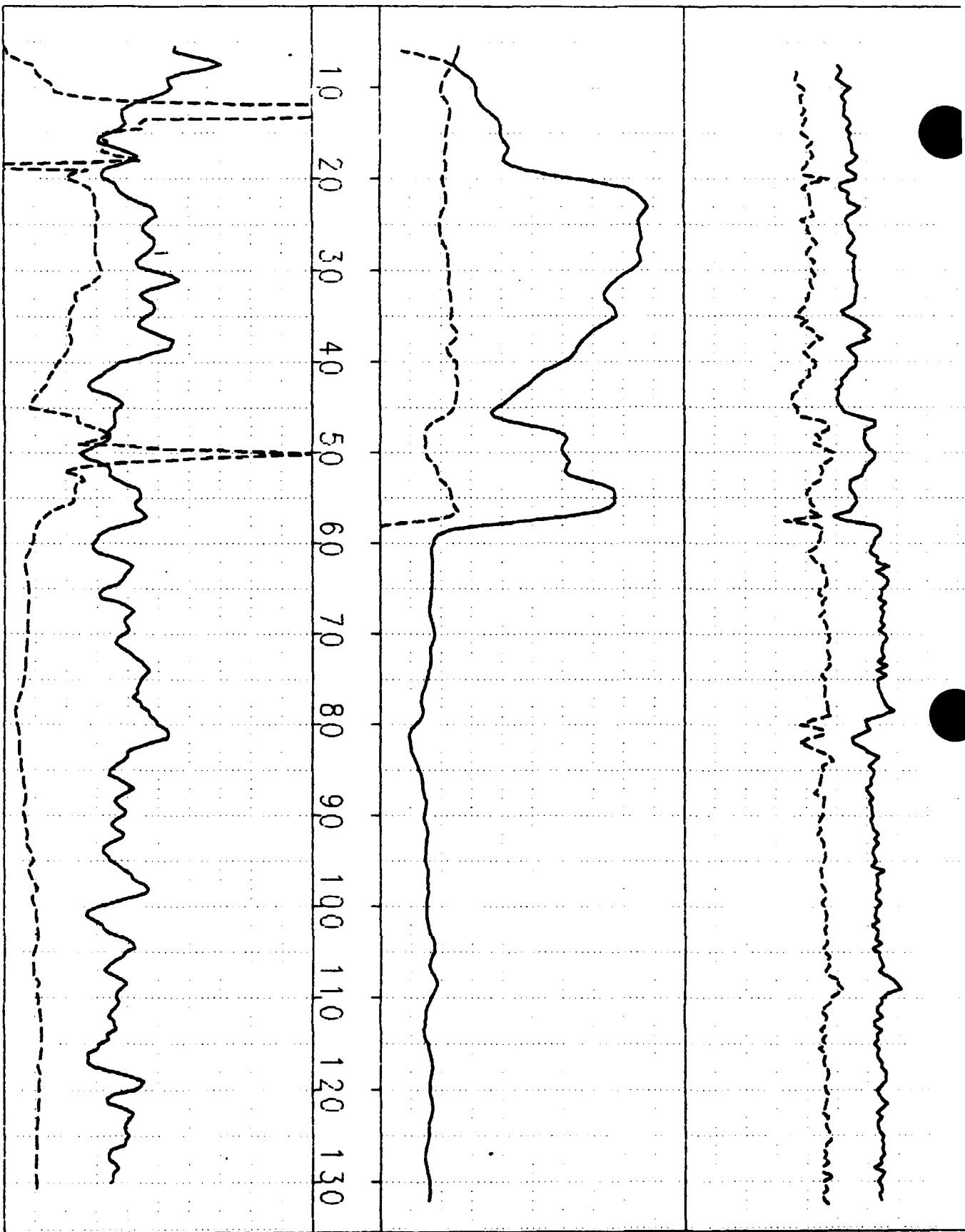




NATURAL GAMMA RAY
10 CPS 60
INDUCTION
0 OHM-M 500
NEUTRON
0 CPS 1000 *
4PI DENSITY
10000 CPS 40000 *
LONG DENSITY
0.0 GM/CC 3.0
SHORT DENSITY
0.0 GM/CC

WELL BAAP SPN8903C





NATURAL GAMMA RAY CPS 10 60
INDUCTION OHM-M 0 500
NEUTRON CPS 0 1000 *
4PI DENSITY CPS 10000 40000 *
LONG DENSITY GM/CC 0.0 3.0
SHORT DENSITY GM/CC 0.0 5.0
WELL BAAP SPN8902C

APPENDIX F
HORIZONTAL AND VERTICAL SURVEY

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1989 BORING AND MONITORING WELL SURVEY DATA

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VIERBICHER ASSOCIATES INCORPORATED

ARCHITECTURE

• PLANNING

• ENGINEERING

• LAND SURVEYING

FINAL REPORT FOR SURVEYING SERVICES MONITORING WELL AND SOIL BORING LOCATIONS BADGER ARMY AMMUNITION PLANT SAUK COUNTY WISCONSIN

The services required for this project includes the horizontal and vertical locations for various monitoring wells and soil borings at Badger Army Ammunition Plant. The horizontal positions have been determined relative to the Universal Transverse Mercator (UTM) system per the NAD 27. The vertical locations are based on Mean Sea Level (MSL) from the 1929 General Adjustment.

The horizontal and vertical control shall be taken from existing control monuments and traverse control currently existing within the Army Ammunition Plant. This control information has been provided by the Army Ammunition Plant.

HORIZONTAL FIELD SURVEY

The horizontal location has been taken from the existing control or has been extended from said control into the survey areas. The equipment that was utilized for the horizontal control was a Lietz SET-4 electronic total station in combination with a Lietz SDR-22 electronic data collector. The grid factor for distances was keyed into the collector at a value of 0.9998919 this provides for an automatic reduction to grid distances required for geographic computations. The output produced by the data collector is based on Wisconsin State Plane Coordinates. A copy of the field notes generated by the data collector is attached as Appendix A.

VERTICAL FIELD SURVEY

The vertical location has also been taken from the existing control or has been extended from said control into the survey areas. The equipment that was used for the vertical survey was a Lietz B-1 automatic level. A copy of the field notes for the vertical survey is attached as Appendix B.

940 E. MAIN STREET
REEDSBURG, WI 53959
(608) 524-6468

6701 SEYBOLD ROAD
MADISON, WI 53719
(608) 274-3898

OFFICE COMPUTATIONS - REPORT GENERATION

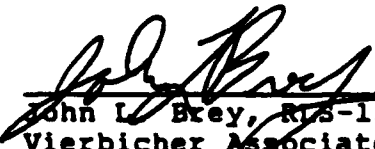
The state plane coordinates determined by the data collector report was input into a batch file named ECJORDPC. The file was then run through a program provided by National Ocean Service - National Geodetic Survey named GPPCGP. This program converts State Plane Coordinates to geographic positions (latitudes and longitude). The output from this run was placed in a batch file named ECJORDGP. Finally this geographic position file was input through a National Ocean Service - National Geodetic Survey named UTMS. This converts the geographic position to the Universal Transverse Mercator System coordinates. The output file is named ECJORDUT. The printout from this file list the UTM's for the wells and borings. A copy of the files generated are attached as Appendix C. The input format is detailed in the front of Appendix C. The report chart was then developed by integrating the vertical positions with the final UTM positions.

SURVEYOR'S CERTIFICATE

I, John L. Brey, Registered Land Surveyor, hereby certify that the above described location survey and the enclosed documentation are correct to the best of my knowledge and belief.

Dated this 5th day of July, 1989.




John L. Brey, S-1319
Vierbicher Associates, Inc.
940 East Main Street
Reedsburg, WI 53959

**MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT**

PROPELLANT BURNING GROUND

MONITORING WELL	UTM NORTHING (Y) METER	UTM EASTING (X) METER	ELEVATIONS			MONITORING WELL
			GROUND SURFACE	WELL RISER	TOP PROTECTIVE CASING	
PBN-89-01-B	4,802,308.1	277,105.4	870.0	872.33	872.47	PBN-89-01-B
P 1-89-01-C	4,802,306.7	277,129.7	875.5	878.06	878.30	PBN-89-01-C
F 1-89-01-D	4,802,307.9	277,112.9	871.5	874.05	874.43	PBN-89-01-D
PBN-89-02-B	4,802,305.1	277,312.0	897.6	900.25	900.41	PBN-89-02-B
P 1-89-02-C	4,802,307.0	277,290.9	894.5	897.04	897.18	PBN-89-02-C
P 1-89-03-B	4,802,334.4	276,880.1	844.9	847.80	847.81	PBN-89-03-B
PBN-89-03-C	4,802,333.9	276,890.7	844.1	846.87	847.02	PBN-89-03-C
P 1-89-04-B	4,801,782.3	277,097.8	856.9	859.23	859.40	PBN-89-04-B
P 1-89-04-C	4,801,775.2	277,107.6	857.7	859.70	860.51	PBN-89-04-C
PBM-89-05	4,802,323.1	276,741.2	852.3	855.58	855.70	PBM-89-05
P 1-89-06	4,802,328.9	277,473.6	883.7	886.37	886.50	PBM-89-06
P 1-89-07	4,801,794.0	276,910.3	846.6	849.36	849.56	PBM-89-07
PBM-89-08	4,801,728.3	277,305.0	885.5	888.56	888.72	PBM-89-08
P 1-89-09	4,803,218.5	277,275.5	880.6	883.48	883.64	PBM-89-09
P 1-89-10-A	4,802,838.7	277,270.4	886.8	889.65	889.79	PBN-89-10-A
PBN-89-10-B	4,802,839.4	277,282.1	889.1	891.81	891.94	PBN-89-10-B
P 1-89-10-C	4,802,838.4	277,259.1	884.7	887.00	887.04	PBN-89-10-C
P 1-89-10-D	4,802,835.9	277,236.0	880.9	884.25	847.39	PBN-89-10-D
PBM-89-11	4,803,527.2	277,261.9	881.6	884.41	884.49	PBM-89-11
P 1-89-12-A	4,801,376.7	277,058.9	852.6	855.66	855.71	PBN-89-12-A
PBN-89-12-B	4,801,368.5	277,058.5	852.6	856.04	856.33	PBN-89-12-B
LOM-89-01	4,803,093.4	277,471.9	915.9	917.86	918.18	LOM-89-01
L 1-89-02-A	4,802,958.1	277,468.6	918.5	920.59	920.74	LON-89-02-A
LON-89-02-B	4,802,960.5	277,477.6	918.9	921.13	921.26	LON-89-02-B
LON-89-03-A	4,802,959.3	277,521.8	919.2	922.14	922.29	LON-89-03-A
L 1-89-03-B	4,802,959.1	277,510.9	919.5	921.99	922.19	LON-89-03-B

SOIL BORINGS

SOIL BORINGS				SOIL BORING
PBB-89-01	4,802,665.3	277,172.2	875.5	PBB-89-01
P 1-89-02	4,802,603.3	277,144.9	873.8	PBB-89-02
P 1-89-03	4,802,607.1	277,090.6	868.2	PBB-89-03
PBB-89-04	4,802,980.1	277,211.2	872.6	PBB-89-04
P 1-89-05	4,802,989.4	277,259.8	879.9	PBB-89-05
P 1-89-06	4,803,075.7	277,276.2	881.9	PBB-89-06
PBB-89-07	4,803,041.6	277,249.9	878.6	PBB-89-07
P 1-89-10	4,802,820.8	277,218.5	878.1	PBB-89-10

**MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
DETERRENT BURNING GROUND**

MONITORING WELL	UTM NORTHING (Y) METER	UTM EASTING (X) METER	ELEVATIONS			MONITORING WELL
			GROUND SURFACE	WELL RISER	TOP PROTECTIVE CASING	
DBM-89-01	4,805,556.1	279,611.3	893.6	895.99	896.17	DBM-89-01
DBN-89-02-A	4,805,558.4	279,769.2	884.8	887.10	887.25	DBN-89-02
DBN-89-02-B	4,805,549.6	279,764.0	884.8	886.90	887.07	DBN-89-02-B
DBM-89-03	4,805,597.8	279,806.8	896.4	898.85	898.99	DBM-89-03
DBN-89-04-A	4,805,874.1	279,605.0	917.5	919.89	920.07	DBN-89-04
DBN-89-04-B	4,805,881.4	279,599.6	917.7	920.14	920.30	DBN-89-04-B
DBM-89-05	4,805,625.7	279,535.2	897.9	900.43	900.58	DBM-89-05

SOIL BORINGS

DBB-89-01	4,805,698.3	279,647.6	899.5			SOIL BORING DBB-89-01
DBB-89-02	4,805,745.4	279,652.7	897.9			DBB-89-02
DBB-89-03	4,805,780.1	279,585.9	897.8			DBB-89-03

EXISTING LANDFILL

MONITORING WELL						MONITORING WELL
ELM-89-01	4,805,783.8	279,844.9	920.5	922.73	922.88	ELM-89-01
ELN-89-02-A	4,805,748.3	279,992.0	919.4	921.10	921.85	ELN-89-02-A
ELN-89-02-B	4,805,747.6	280,007.9	918.0	920.19	921.36	ELN-89-02
ELM-89-03	4,805,777.0	280,214.9	914.0	916.28	916.45	ELM-89-03
ELN-89-04-A	4,805,979.2	280,159.8	924.1	926.28	926.43	ELN-89-04-A
ELN-89-04-B	4,805,957.7	280,172.7	924.8	926.63	926.80	ELN-89-04
ELM-89-05	4,806,115.1	280,061.1	898.2	900.95	901.06	ELM-89-05
ELM-89-06-B	4,805,864.6	280,212.4	906.1	908.22	908.87	ELM-89-06
ELM-89-07	4,805,587.2	280,112.7	913.7	916.19	916.25	ELM-89-07
ELM-89-08	4,805,593.1	279,972.7	903.0	906.04	906.21	ELM-89-08
ELM-89-09	4,805,843.9	279,744.6	919.6	921.79	922.82	ELM-89-09

SETTLING PONDS

SPOILS DISPOSAL AREA

SPN-89-01-C	4,800,906.7	276,414.4	827.8	830.04	830.20	SPN-89-01
SPN-89-02-A	4,800,904.7	276,684.4	820.8	823.67	823.76	SPN-89-02-A
SPN-89-02-B	4,800,902.4	276,690.1	820.3	823.53	823.66	SPN-89-02
SPN-89-02-C	4,800,903.2	276,702.8	820.0	822.60	822.64	SPN-89-02
SPN-89-03-B	4,800,953.7	276,907.0	815.1	818.09	818.21	SPN-89-03-B
SPN-89-03-C	4,803,992.4	277,006.8	815.3	818.25	818.65	SPN-89-03
SPN-89-04-B	4,800,868.5	277,211.6	801.6	804.21	804.42	SPN-89-04
SPN-89-04-C	4,800,868.3	277,242.8	800.7	803.17	803.36	SPN-89-04-C
SPN-89-05-A	4,800,838.1	279,011.3	801.6	804.25	804.48	SPN-89-05
SPN-89-05-B	4,800,834.8	279,006.9	801.6	804.02	804.21	SPN-89-05

APPENDIX B

VERTICAL CONTROL SURVEY FIELD NOTES

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EC Jordan

BAP

Veri Central

5/4/89

Shredder

1000

PVC wells Shot on highest
point (excluding sawcut irreducibly)

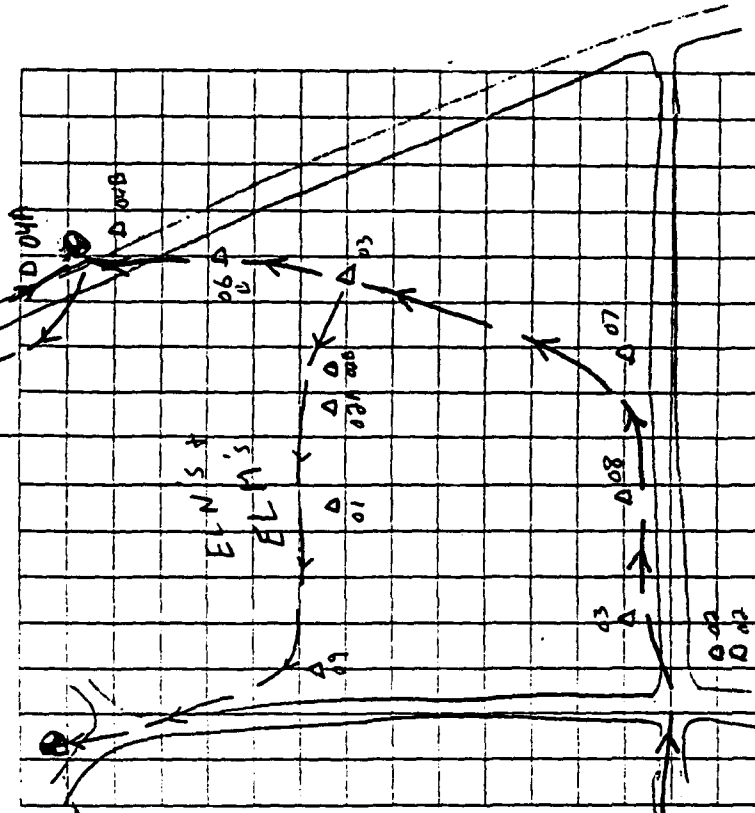
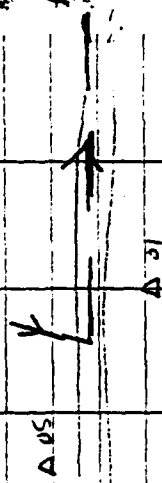
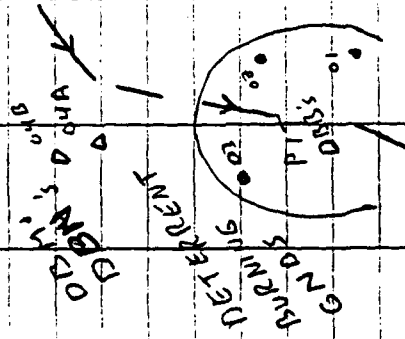
Steel Corrosion Shot on North
Edge

3

⊕ : Control Pt

Δ = Well

○ : Borehole



VERT CONT ROL LOOP AT

Det. Burnings Gnet

AND OLD LAND FILL

STA	FS	HI	BS	STA	BS	HI	FS	5
Disk @ 4.13.500				DBN 89-03B Gnd			8.83	884.8
TP 1				" " PVC			6.75	886.90
DBN 89-04A Gnd	0.59	923.01		" " Steel Casings			6.58	887.07
" " PVC	4.24	922.11		TP 6	11.29	899.735	5.305	888.345
" " Steel Casings				DBM 89-03 Gnd			3.35	896.4
DBN 89-04B Gnd				" " PVC			0.89	898.845
" " PVC				" " Steel Casings			0.745	898.99
" " Steel Casings				TP 7	12.09	906.355	5.47	894.265
TP 2				ELM 89-08 Gnd			3.35	903.0
TP 3				" " PVC			0.32	906.035
DBB 89-03 Gnd	0.23	914.93		" " Steel Casings			0.145	906.21
DBB 89-02 Gnd	0.40	902.87		TP 8	11.69	917.885	0.16	906.195
DBB 89-01 Gnd				TP 9	24.18	918.01	2.355	915.53
TP 4	1.32	903.15		ELM 89-07 Gnd			4.33	913.7
DBM 89-05 Gnd				" " PVC			1.82	916.19
" " PVC				" " Steel Casings			1.765	916.245
" " Steel Casings				TP 10	7.16	917.71	2.485	910.55
DBM 89-01 Gnd				ELM 89-03 Gnd			3.75	914.0
" " PVC				" " PVC			1.43	916.28
" " Steel Casings				" " Steel Casings			1.26	916.45
TP 5	0.88	893.65		TP 11	8.15	919.23	6.63	911.08
DBN 89-02A Gnd				ELN 89-06B Gnd			13.13	906.1
" " PVC				" " PVC			11.61	908.22
" " Casings				" " Steel Casings			10.36	908.87
				TP 12	9.64	928.67	0.20	919.03

STA	BS	HI	FS	Elev	STA	BS	HI	FS	Elev
ELN 8904B	GND		3.90	924.8	ELN 8902A	GND		5.32	919.4
" " "	PVC		2.04	926.63	" "	PVC		3.64	921.10
" " "	Steel Casing		1.87	926.80	" "	Steel Casing		2.89	921.85
ELN 8904A	GND		4.57	924.1	TP 18	8.59	926.15	7.18	917.56
" " "	PVC		2.39	926.28	ELM 8901	GND		5.67	920.5
" " "	Steel Casing		2.21	926.43	" "	PVC		3.425	922.725
Disk @ E 15.000			4.04	924.63	" "	Steel Casing		3.27	922.88
Disk @ E 15.000					TP 19	5.065	925.535	5.68	920.47
Disk @ E 15.000					ELM 8909	GND		5.93	919.6
TP 13		1.79	926.42	924.63	" "	PVC		3.75	921.785
TP 14		0.20	915.91	915.71	" "	Steel Casing		2.715	922.82
ELM 89-05		7.65	910.34	902.69	" "	Steel Casing		5.255	919.58
" "	GND		12.10	898.2	TP 20	6.42	926.00	3.58	922.42
" "	PVC		9.39	900.95	Disk @ E 13.500				
" "	Steel Casing		9.28	901.06					
TP 15		10.14	920.285	910.145					
TP 16		7.80	927.745	919.945					
Disk @ E 15.000			3.115	924.63					
			27.55						
ELM 89-03	Steel Casing	2.25	918.70	916.45					
TP 17		9.02	924.74	915.72					
ELN 8902B	GND		6.75	918.0					
" "	PVC		4.55	920.1					
" "	Steel Casing		3.385	921.355					

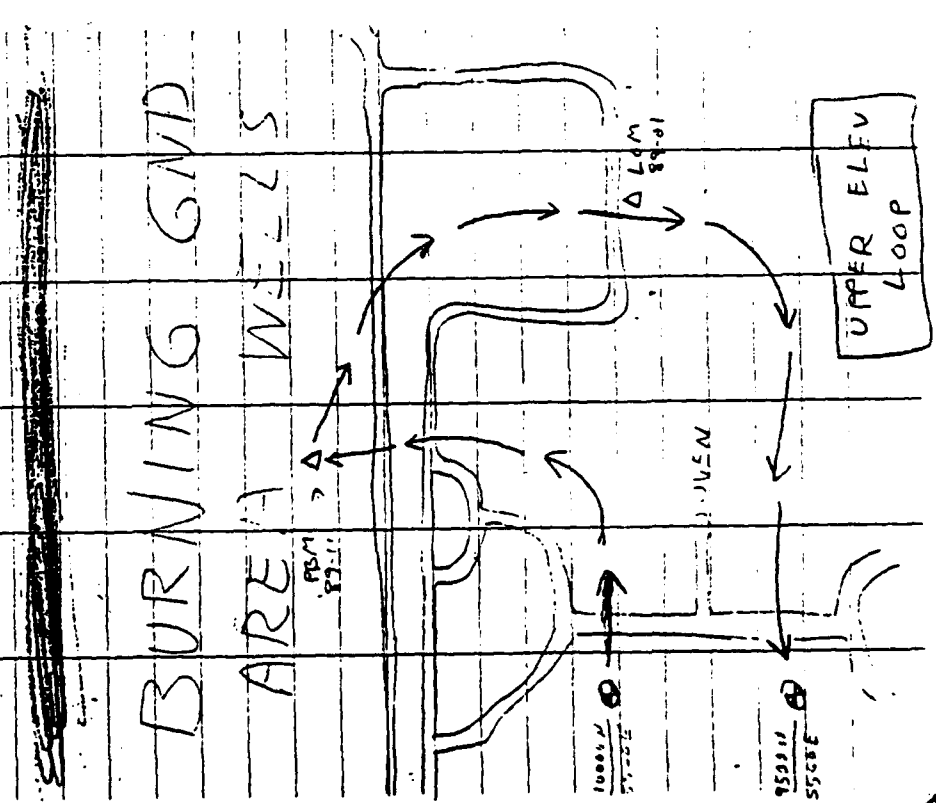
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SOUTH PERIMETER AREA WELLS

9

STATION	BS	HI	FS	HI	FS	HI
ST A						
SPN 8905A GND	6.81	791.02		824.225		822.015
TP 21	9.75	800.37		815.58	11.635	812.59
TP 22	11.10	810.77		822.50	1.87	813.71
SPN 8905B GND						
TP 23					7.47	815.1
SPN 8905C GND					4.41	818.09
TP 24					4.29	818.21
TP 25					7.23	815.3
SPN 8905D GND					4.25	818.25
TP 26					3.85	818.65
TP 27					6.83	822.51
SPN 8905E GND					7.01	826.02
TP 28					5.98	820.0
TP 29					3.125	822.595
TP 30					3.38	822.64
TP 31					5.76	820.3
TP 32					2.19	823.53
TP 33					2.365	823.655
TP 34					5.21	820.8
TP 35					2.35	823.67
TP 36					2.26	823.76
TP 37					3.79	820.23
TP 38					6.64	825.51
TP 39						
TP 40						
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TP 97						
TP 98						
TP 99						
TP 100						

STA	PS	HI	FS	Elev
SPN 8901 C Gnd			4.38	8227.8
" " PVC			2.11	830.04
" " Slope Casing			1.95	830.20
S 1133			3.23	82892.
S 1101			0.62	831.53



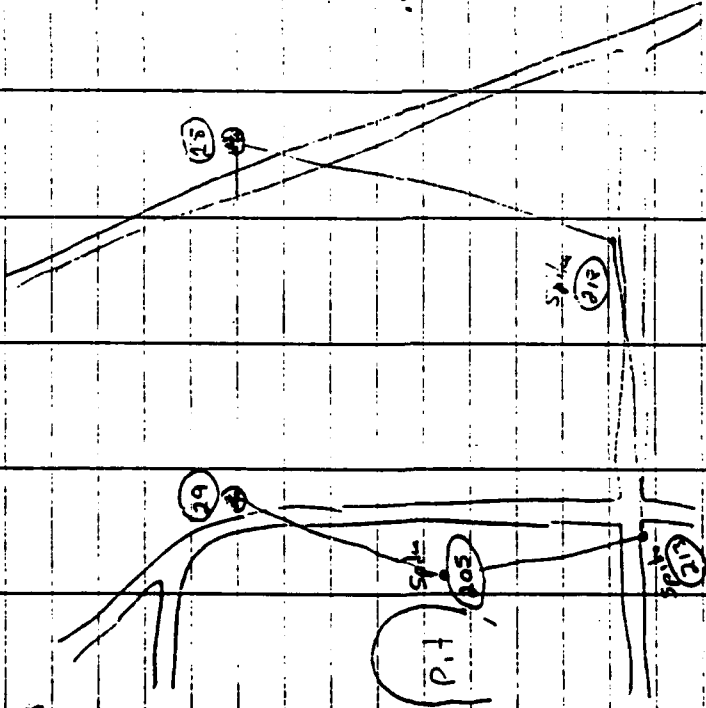
STA	BS	HI	FS	Elev
Dike 10000N	11.57	869.29		857.70
TP 32	12.61	881.48	0.45	868.84
PBS 8904 Gnd			8.84	872.6
PBS 8905 Gnd			1.60	879.9
PBS 8907 Gnd			2.91	878.6
PBS 8906 Gnd			(-0.41)	881.9
TP 31	6.97	885.42	3.03	878.45
PBM 8909 Gnd			4.87	880.6
" " PVC			1.94	883.48
" " Slope Casing			1.78	883.64
TP 32	2.245	887.48	0.185	885.235
TP 33	6.60	889.89	4.19	883.29
PBM 8911 Gnd			8.34	881.6
" " PVC			5.48	884.41
" " Slope Casing	11.24	895.78	5.40	884.49
TP 34	10.785	906.435	0.13	895.65
TP 35	13.19	918.535	0.09	906.345
TP 36	4.87	921.595	1.81	916.725
TP 37	9.89	922.93	2.55	913.04
TP 38	2.05	921.69	3.29	919.64
LOM 8901 Gnd			5.74	915.9
" " PVC			3.83	917.86
" " Slope Casing			3.51	918.18
TP 39	7.08	920.91	8.76	912.93

STA	BS	HI	FS		TP	BS	HI	FS	Elkv
LON 8903A	893	926.27	2.67	917.34	TP 44	0.10	885.14	11.57	884.54
" " "			7.02	919.2	PBN 8910D			4.22	880.9
" " "			4.13	922.14	" "			0.89	884.25
" " "			3.98	922.29	" "			2.75	884.385
LON 8903B			6.78	919.5	PVC			7.02	878.1
" " "			4.28	921.99	PVC 29-13			1.10	874.04
" " "			4.08	922.19	TP 45	0.80	874.84	8.23	866.61
LON 8902B			7.35	918.9	TP 46	3.53	870.14	7.57	860.57
" " "			5.11	921.13	" "				
" " "			5.01	921.26	" "				
LON 8902A			7.81	918.46	" "				
" " "			5.68	920.59	" "				
" " "			5.535	920.735	" "				
TP 41	0.63	921.045	6.055	920.215	PBN 8205C	0.81	878.97		878.165
TP 42	0.505	908.45	13.10	907.945	S1185	0.57			878.385
TP 43	0.641	895.91	13.187	895.27	PBN 89-02			5.19	873.8
PBN 8905B			4.10	889.1	PBN 89-07			10.80	868.2
" " "			3.97	891.81	PBN 89-01			3.44	875.5
" " "			7.10	891.94	" "				
PBN 8910A			6.265	886.8	" "				
" " "			6.25	889.645	" "				
" " "			11.16	889.785	" "				
PBN 8910C			8.91	884.7	" "				
" " "			8.87	887.00	" "				
" " "			8.87	887.04	" "				

STA	BS	HI	FS	LI	ST A	ST A	BS	HI	FS	LI
PBM 8506	9.11	857.565		848.455	ST A	PBM 8506	5.18	853.635		848.455
TP 53	12.75	870.005	0.40	857.255	TP 50	TP 50	1.46	852.675	2.40	851.215
TP 54	11.03	883.635	0.78	869.605	TP 61	TP 61	7.14	858.23	1.525	851.09
1925 VA 1 560N 1200 = 84954	6.02	888.875	0.78	882.855	PBN 8912A	PBN 8912A			5.60	852.6
PBM 8908			3.20	885.5	"	"			2.57	855.66
"			0.32	888.555	"	"			2.52	855.71
"			0.16	888.715	PBN 8912B	PBN 8912B			5.60	852.6
TP 55	0.17	879.635	9.43	879.445	"	"			2.19	856.04
TP 56	0.40	868.325	11.71	867.925	"	"	1.31	857.635	1.905	856.325
PBN 8904C			12.60	857.7	TP 62	TP 62	5.79	853.515	9.805	847.725
"			8.625	859.70	PBN 85116	PBN 85116			5.06	848.455
"			7.81	860.51						
PBN 8904B			11.43	856.9						
"			9.10	859.225						
"			8.93	859.395						
PBN 8514A	0.28	860.375	8.23	860.095						
TP 57	2.42	851.995	10.80	849.575						
PBM 8907			5.11	846.6						
"			2.11	849.355						
"			2.01	849.555						
1925 VA 1 560N 1200 = 84954	7.65	854.665	4.18	847.015						
TP 58	7.21	859.985	2.11	852.095						
TP 59	9.00	865.655	3.33	856.655						
PBM 8505			0.69	864.965						

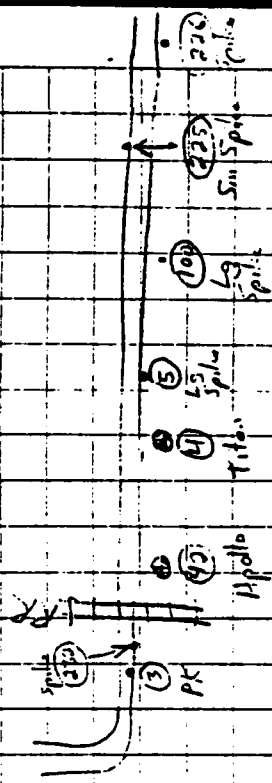
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Old Landfill / Det. 100

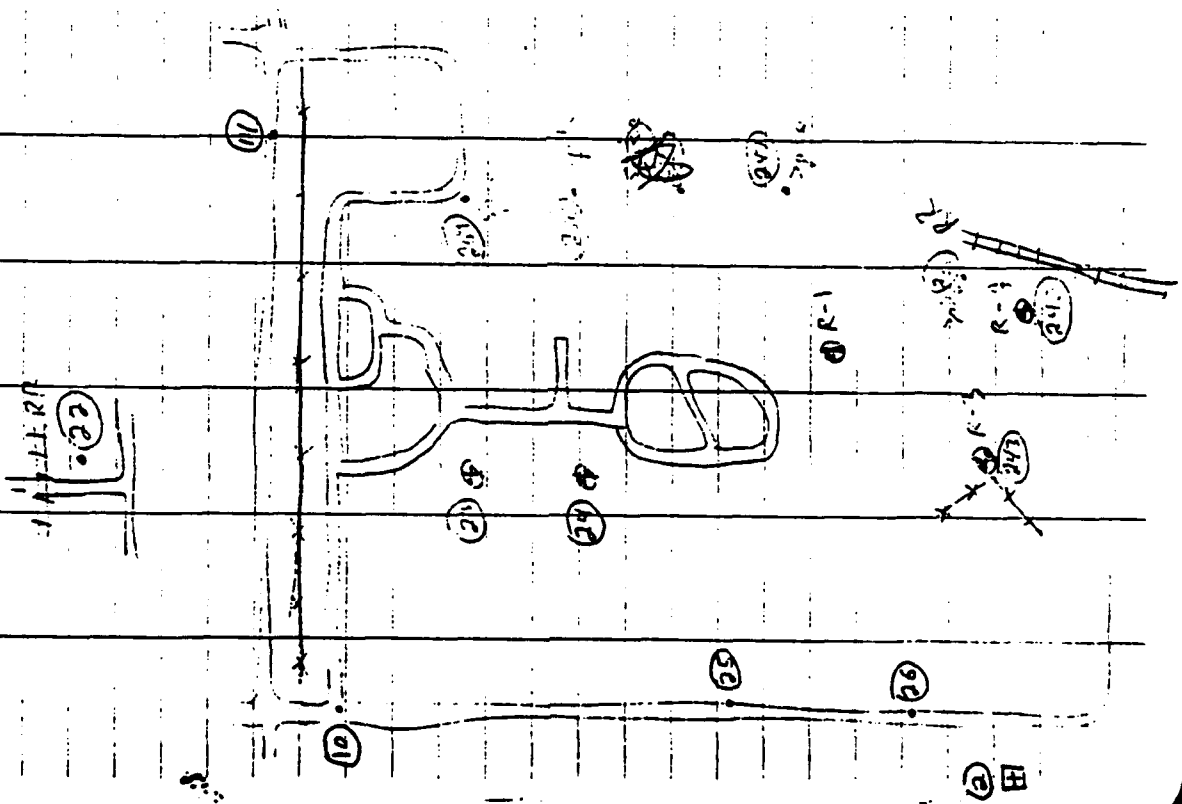


Permeability

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BURNING GROUNDS



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APPENDIX C

COMPUTER INPUT - OUTPUT FILES

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State Plane Coordinate Record (*81* record) **

CC01-06	Sequence Number	(OPTIONAL)
CC07-10	Data Code (IE: *81*)	
CC11-13	Station Serial Number	(OPTIONAL)
CC14	Blank	
CC15-44	Station Name	
CC45-54	X Coordinate, in feet, to three decimal places, decimal point implied between CC51-52 (XXXXXXXx)	
CC55-65	Y Coordinate, in feet, to three decimal places, decimal point implied between CC62-63 (YYYYY,YYYYy)	
CC66-69	State and Zone code (SSZZ)	
CC70-75	Elevation of mark above MSL, in meters, decimal point implied between CC73-74 (EEEEe)	(OPTIONAL)
CC76	Elevation code	(OPTIONAL)
CC77-78	State or Country Code	(OPTIONAL)
CC79-80	Station Order and Type	(OPTIONAL)

Geodetic Position Record (IE: *80* record) **

CC01-06	Sequence Number	(OPTIONAL)
CC07-10	Data Code (IE: *80*)	
CC11-13	Station Serial Number	(OPTIONAL)
CC14	Blank	
CC15-44	Station Name	
CC45-55	Geodetic Latitude: Deg-Min-Sec, to 5 decimal places, decimal point implied between CC50-51 (DDMMSSsssss)	
CC56	Direction of Latitude: N or S	
CC57-68	Geodetic Longitude: Deg-Min-Sec, to 5 decimal places, decimal point implied between CC63-64 (DDMMSSsssss)	
CC69	Direction of Longitude: E or W	
CC70-75	Elevation of mark above MSL, in meters, decimal point implied between CC73-74 (EEEEe)	(OPTIONAL)
CC76	Elevation code	(OPTIONAL)
CC77-78	State or Country Code	(OPTIONAL)
CC79-80	Station Order and Type	(OPTIONAL)

000010*81*	PBN-89-01-B	2066556775	4893960484803
000020*81*	PBN-89-01-C	2066636871	4893943544803
000030*81*	PBN-89-01-D	2066581611	4893962314803
000040*81*	PBN-89-02-B	2067234356	4894106794803
000050*81*	PBN-89-02-C	2067165143	4894143624803
000060*81*	PBN-89-03-B	2065815461	4894556024803
000070*81*	PBN-89-03-C	2065850277	4894554304803
000080*81*	PBN-89-04-B	2066594115	4876715764803
000090*81*	PBN-89-04-C	2066626847	4876497224803
000100*81*	PBN-89-05	2065361425	4894021814803
000110*81*	PBN-89-06	2067761407	4895077814803
000120*81*	PBN-89-07	2065978089	4876280844803
000130*81*	PBN-89-08	2067279533	4875191364803
000140*81*	PBN-89-09	2067007009	4924003974803
000150*81*	PBN-89-10-A	2067035338	4911548134803
000160*81*	PBN-89-10-B	2067073406	4911584934803
000170*81*	PBN-89-10-C	2066998283	4911524484803
000180*81*	PBN-89-10-D	2066922641	4911413664803
000190*81*	PBN-89-11	2066926004	4934103464803
000200*81*	PBN-89-12-A	2066514440	4863376004803
000210*81*	PBN-89-12-B	2066513920	4863105974803
000220*81*	LQM-89-01	2067665665	4920134664803
000230*81*	LQN-89-02-A	2067670909	4915695934803
000240*81*	LQN-89-02-B	2067700120	4915783414803
000250*81*	LQN-89-03-A	2067845115	4915797654803
000260*81*	LQN-89-03-B	2067809341	4915777754803
000270*81*	PBB-89-01	2066733855	4905746344803
000280*81*	PBB-89-02	2066651677	4903684854803
000290*81*	PBB-89-03	2066473108	4903744394803
000300*81*	PBB-89-04	2066224513	4916110154803
000310*81*	PBB-89-05	2066982758	4916473784803
000320*81*	PBB-89-06	2067026129	4919322774803
000330*81*	PBB-89-07	2066944163	4913173514803
000340*81*	PBB-89-10	2066867194	4910899464803
000350*81*	DBM-89-01	2074387734	5003378924803
000360*81*	DBN-89-02-A	2074905068	5003641504803
000370*81*	DBN-89-02-B	2074289003	5003347944803
000380*81*	DBM-89-03	2075023543	5004977904803
000390*81*	DBN-89-04-A	2074329532	5013796734803
000400*81*	DBN-89-04-B	2074311035	5014023524803
000410*81*	DBM-89-05	2074130252	5005572044803
000420*81*	DBB-89-01	2074490086	5008084314803
000430*81*	DBB-89-02	2074501167	5009635144803
000440*81*	DBE-89-03	2074277995	5010691464803
000450*81*	ELM-89-01	2075126739	5011118234803
000460*81*	ELN-89-02-A	2075613011	5010128674803
000470*81*	ELN-89-02-B	2075665078	5010123744803
000480*81*	ELM-89-03	2076340181	5011331664803
000490*81*	ELN-89-04-A	2076135647	5017894314803
000500*81*	ELN-89-04-B	2076180467	5017204854803
000510*81*	ELM-89-05	2075796343	5022234924803
000520*81*	ELM-89-06	2076321781	5014200344803

000530*81*	ELM-89-07	2076027644	5004989234803
000540*81*	ELM-89-08	2075568068	5005019414803
000550*81*	ELM-89-09	2074790649	5012970814803
000560*81*	SPN-89-01-C	2064457030	4847211204803
000570*81*	SPN-89-02-A	2065342485	4847464804803
000580*81*	SPN-89-02-B	2065361485	4847394534803
000590*81*	SPN-89-02-C	2065402750	4847437044803
000600*81*	SPN-89-03-B	2066066335	4849332904803
000610*81*	SPN-89-03-C	2066035196	4949054024803
000620*81*	SPN-89-04-B	2067074674	4846899854803
000630*81*	SPN-89-04-C	2067177105	4846928364803
000640*81*	SPN-89-05-A	2072977522	4848025374803
000650*81*	SPN-89-05-B	2072963296	4847911854803

000010*80*000	PBN-89-01-B	43203303039N089445930254W
000020*80*000	PBN-89-01-C	43203301128N089445821869W
000030*80*000	PBN-89-01-D	43203303146N089445896643W
000040*80*000	PBN-89-02-B	43203315472N089445013244W
000050*80*000	PBN-89-02-C	43203319317N089445106893W
000060*80*000	PBN-89-03-B	43203364047N089450933212W
000070*80*000	PBN-89-03-C	43203363775N089450886097W
000080*80*000	PBN-89-04-B	43201599614N089445886728W
000090*80*000	PBN-89-04-C	43201577931N089445842525W
000100*80*000	PBM-89-05	43203312608N089451547859W
000110*80*000	PBM-89-06	43203403799N089444299601W
000120*80*000	PBM-89-07	43201617737N089450720245W
000130*80*000	PBM-89-08	43201447061N089444959870W
000140*80*000	PBM-89-09	43210269186N089445308683W
000150*80*000	PBN-89-10-A	43205038801N089445275436W
000160*80*000	PBN-89-10-B	43205042322N089445223901W
000170*80*000	PBN-89-10-C	43205036576N089445325595W
000180*80*000	PBN-89-10-D	43205025855N089445428012W
000190*80*000	PBM-89-11	43211266984N089445414195W
000200*80*000	PBN-89-12-A	43200292239N089445999953W
000210*80*000	PBN-89-12-B	43200255589N089450000766W
000220*80*000	LON-89-01	43205885029N089444418822W
000230*80*000	LON-89-02-A	43205446586N089444413557W
000240*80*000	LON-89-02-B	43205455138N089444373987W
000250*80*000	LON-89-03-A	43205456107N089444177744W
000260*80*000	LON-89-03-B	43205454250N089444226169W
000270*80*000	PSE-89-01	43204466639N089445685818W
000280*80*000	PSE-89-02	43204263263N089445797671W
000290*80*000	PSE-89-03	43204265674N089450039510W
000300*80*000	PSE-89-04	43205490330N089445558900W
000310*80*000	PSE-89-05	43205525479N089445544523W
000320*80*000	PSE-89-06	43205806753N089445284720W
000330*80*000	PSE-89-07	43205693482N089445396124W
000340*80*000	PSE-89-10	43204975231N089445503253W
000350*80*000	DBM-89-01	43222086023N089431283194W
000360*80*000	DBN-89-02-A	43222110239N089430582638W
000370*80*000	DBN-89-02-B	43222081297N089430604523W
000380*80*000	DBM-89-03	43222241843N089430421618W
000390*80*000	DBN-89-04-A	43223115209N089431357185W
000400*80*000	DBN-89-04-B	43223158165N089431382205W
000410*80*000	DBM-89-05	43222303465N089431630814W
000420*80*000	DBB-89-01	43222550447N089431142475W
000430*80*000	DBB-89-02	43222703589N089431126767W
000440*80*000	DBB-89-03	43222808664N089431428456W
000450*80*000	ELM-89-01	43222847993N089430279079W
000460*80*000	ELN-89-02-A	43222748619N089425621134W
000470*80*000	ELN-89-02-B	43222747956N089425550639W
000480*80*000	ELM-89-03	43222864969N089424636003W
000490*80*000	ELN-89-04-A	43223513883N089424909887W
000500*80*000	ELN-89-04-B	43223445631N089424849521W
000510*80*000	ELM-89-05	43223943764N089425367303W
000520*80*000	ELM-89-06	43223148389N089424659580W

000530*80*000	ELM-89-07	43222239583N089425062117W
000540*80*000	ELM-89-08	43222244116N089425684343W
000550*80*000	ELM-89-09	43223032099N089430733293W
000560*80*000	SPN-89-01-C	43194691588N089452790153W
000570*80*000	SPN-89-02-A	43194714078N089451592045W
000580*80*000	SPN-89-02-B	43194707082N089451566366W
000590*80*000	SPN-89-02-C	43194711161N089451510518W
000600*80*000	SPN-89-03-B	43194896479N089450611934W
000610*80*000	SPN-89-03-C	43212746331N089450613887W
000620*80*000	SPN-89-04-B	43194653171N089445248650W
000630*80*000	SPN-89-04-C	43194655681N089445110051W
000640*80*000	SPN-89-05-A	43194745941N089433261711W
000650*80*000	SPN-89-05-B	43194734774N089433281009W

FINAL COORDINATE LISTING
FOR 1-89521

NATIONAL GEODETIC SURVEY
GP TO UTM'S PROGRAM
1927 DATUM

VERSION 1.0

STATION NAME	LATITUDE (NORTH)	LONGITUDE (WEST)	NORTHING(Y) METER	EASTING(X) METER	ZONE	CONVERGENCE D M S	SCALE FACTOR	ELEV (M)	GEOTD HT(M)
PBN-89-01-B	43 20 33.03039	089 44 59.30254	4802308.091	277105.359	16	-1 53 17.26	1.00021117		
PBN-89-01-C	43 20 33.01128	089 44 58.21869	4802306.697	277129.745	16	-1 53 16.51	1.00021104		
PBN-89-01-D	43 20 33.03146	089 44 58.96643	4802307.374	277112.928	16	-1 53 17.03	1.00021113		
PBN-89-02-B	43 20 33.15472	089 44 50.13244	4802305.122	277311.971	16	-1 53 10.96	1.00021004		
PBN-89-02-C	43 20 33.19317	089 44 51.06893	4802307.003	277290.922	16	-1 53 11.60	1.00021015		
PBN-89-03-B	43 20 33.64047	089 45 9.33212	4802334.361	276880.142	16	-1 53 24.17	1.00021241		
PBN-89-03-C	43 20 33.63775	089 45 8.36097	4802333.927	276890.748	16	-1 53 23.85	1.00021235		
PBN-89-04-B	43 20 15.99614	089 44 58.86728	4801751.255	277097.837	16	-1 53 16.36	1.00021121		
PBN-89-04-C	43 20 15.77921	089 44 58.42525	4801775.238	277107.571	16	-1 53 16.05	1.00021116		
PBN-89-05	43 20 33.12608	089 45 15.47859	4802323.060	276741.217	16	-1 53 28.38	1.00021317		
PBN-89-06	43 20 34.09799	089 44 42.99601	4802328.932	277473.621	16	-1 53 6.09	1.00020915		
PBN-89-07	43 20 15.17737	089 45 7.20245	4801794.035	276910.322	16	-1 53 22.10	1.00021224		
PBN-89-08	43 20 14.47061	089 44 49.59870	4801728.315	277505.006	16	-1 53 9.94	1.00021008		
PBN-89-09	43 21 2.69186	089 44 53.08633	4803212.546	277275.469	16	-1 53 14.02	1.00021024		
PBN-89-10-A	43 20 50.38801	089 44 52.75436	4802359.720	277270.448	16	-1 53 13.26	1.00021027		
PBN-89-10-B	43 20 50.42222	089 44 52.23901	4802359.424	277252.087	16	-1 53 13.01	1.00021020		
PBN-89-10-C	43 20 50.36576	089 44 53.25595	4802358.406	277259.132	16	-1 53 13.71	1.00021033		
PBN-89-10-D	43 20 50.25855	089 44 54.29012	4802355.856	277235.963	16	-1 53 14.41	1.00021045		
PBN-89-11	43 21 12.66984	089 44 54.14195	4803527.153	277261.358	16	-1 53 15.09	1.00021031		
PBN-89-12-A	43 20 2.32239	089 44 59.99953	4801375.681	277058.943	16	-1 53 16.68	1.00021143		
PBN-89-12-B	43 20 2.55569	089 45 0.00756	4801368.459	277053.489	16	-1 53 16.53	1.00021143		
LON-89-01	43 20 58.85028	089 44 44.18822	4803093.433	277471.912	16	-1 53 7.77	1.00020916		
LON-89-02-A	43 20 54.46586	089 44 44.13557	4802958.133	277468.645	16	-1 53 7.58	1.00020918		
LON-89-02-B	43 20 54.55138	089 44 43.73987	4802960.478	277477.641	16	-1 53 7.31	1.00020912		
LON-89-03-A	43 20 54.56107	089 44 41.77744	4802959.323	277521.835	16	-1 53 5.96	1.00020889		
LON-89-02-B	43 20 54.54250	089 44 42.26169	4802959.109	277510.913	16	-1 53 6.20	1.00020895		
PBB-89-01	43 20 44.66639	089 44 56.35818	4802665.251	277172.231	16	-1 53 15.98	1.00021080		
PBB-89-02	43 20 42.63263	089 44 57.97871	4802603.341	277144.333	16	-1 53 16.68	1.00021095		
PBB-89-03	43 20 42.63674	089 45 0.39510	4802607.112	277090.590	16	-1 53 18.34	1.00021125		
PBB-89-04	43 20 54.90330	089 44 55.58900	4802980.122	277211.216	16	-1 53 15.47	1.00021059		
PBB-89-05	43 20 55.25479	089 44 53.44583	4802989.375	277259.826	16	-1 53 14.01	1.00021032		
PBB-89-06	43 20 58.06753	089 44 52.84720	4803075.705	277276.163	16	-1 53 13.59	1.00021023		
PBB-89-07	43 20 56.93482	089 44 53.96124	4803041.587	277249.930	16	-1 53 14.42	1.00021038		
PBB-89-10	43 20 49.75231	089 44 55.05263	4802820.799	277218.505	16	-1 53 14.91	1.00021055		
DBN-89-01	43 22 20.86023	089 43 12.83194	4805356.074	279611.292	16	-1 52 7.81	1.00019750		
DBN-89-02-A	43 22 21.10239	089 43 5.82638	4805358.402	279769.203	16	-1 52 3.00	1.00019664		
DBN-89-02-B	43 22 20.81297	089 43 6.04523	4805349.634	279763.987	16	-1 52 3.14	1.00019667		
DBN-89-03	43 22 22.41843	089 43 4.21618	4805397.821	279806.766	16	-1 52 1.94	1.00019644		
DBN-89-04-A	43 22 31.15209	089 43 13.57185	4805874.126	279605.001	16	-1 52 8.68	1.00019753		

DBN-89-04-B	43 22 31.38165	089 43 13.82205	4805881.392	279599.601	16	-1 52	8.86	1.00019756
DBN-89-05	43 22 23.03495	089 43 16.30814	4805625.719	279535.246	16	-1 52	10.28	1.00019791
DBB-89-01	43 22 25.50447	089 43 11.42475	4805698.318	279647.637	16	-1 52	7.00	1.00019730
DBB-89-02	43 22 27.03589	089 43 11.26767	4805745.448	279652.713	16	-1 52	6.95	1.00019728
DBB-89-03	43 22 28.08664	089 43 14.28456	4805780.079	279585.875	16	-1 52	9.06	1.00019764
ELN-89-01	43 22 28.47993	089 43 2.79079	4805783.776	279844.941	16	-1 52	1.17	1.00019623
ELN-89-02-A	43 22 27.48619	089 42 56.21134	4805748.293	279992.015	16	-1 51	56.61	1.00019544
ELN-89-02-B	43 22 27.47956	089 42 55.50639	4805747.572	280007.874	16	-1 51	56.13	1.00019535
ELN-89-03	43 22 28.64980	089 42 46.36003	4805776.973	280214.891	16	-1 51	49.88	1.00019423

FINAL COORDINATE LISTING
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VERSION 1.0

STATION NAME	LATITUDE (NORTH)	LONGITUDE (WEST)	NORTHING(Y) METER	EASTING(X) METER	ZONE	CONVERGENCE D M S	SCALE FACTOR	ELEV (M)	SEID HT(M)
ELN-89-04-A	43 22 35.13883	089 42 49.09887	4805979.168	280159.769	16	-1 51	51.98	1.00019453	
ELN-89-04-B	43 22 34.45631	089 42 48.49521	4805957.670	280172.669	16	-1 51	51.55	1.00019446	
ELN-89-05	43 22 39.43764	089 42 53.67303	4806115.140	280061.149	16	-1 51	55.28	1.00019506	
89-06	43 22 31.48389	089 42 46.59580	4805864.578	280212.430	16	-1 51	50.14	1.00019424	
89-07	43 22 22.39583	089 42 50.62117	4805587.156	280112.712	16	-1 51	52.59	1.00019478	
ELN-89-08	43 22 22.44116	089 42 56.34343	4805593.115	279972.720	16	-1 51	56.37	1.00019554	
ELN-89-09	43 22 30.21999	089 43 7.33293	4805843.306	279744.571	16	-1 52	4.36	1.00019678	
SPN-89-01-C	43 19 46.91588	089 45 27.30153	4800906.702	276414.360	16	-1 53	35.30	1.00021497	
SPN-89-02-A	43 19 47.14078	089 45 15.32045	4800904.726	276664.427	16	-1 53	27.07	1.00021348	
SPN-89-02-B	43 19 47.07082	089 45 15.66366	4800902.377	276690.139	16	-1 53	26.39	1.00021345	
SPN-89-02-C	43 19 47.11161	089 45 15.10518	4800903.220	276702.758	16	-1 53	25.51	1.00021338	
SPN-89-03-B	43 19 48.96479	089 45 6.11934	4800953.714	276907.023	16	-1 53	20.40	1.00021226	
SPN-89-03-C	43 21 27.46331	089 45 5.13887	4803992.444	277006.829	16	-1 53	23.85	1.00021171	
SPN-89-04-B	43 19 46.53171	089 44 52.48650	4800868.533	277211.586	16	-1 53	10.95	1.00021059	
SPN-89-04-C	43 19 46.55681	089 44 51.10051	4800868.280	277242.827	16	-1 53	10.90	1.00021042	
SPN-89-05-A	43 19 47.45941	089 43 32.51711	4800838.148	279011.338	16	-1 52	16.11	1.00020076	
SPN-89-05-B	43 19 47.34774	089 43 32.31009	4800834.945	279006.879	16	-1 52	16.24	1.00020079	

Wisconsin Department of Natural Resources
 Division of Forestry
 Bureau of Forest Management
 January, 1989

ITEM MONITORING WELL	WISCONSIN STATE PLANE COORDINATES		GRID BADGER PLANT COORDINATES		ELEVATION		ITEM MONITORING WELL
	NORTHING Y	EASTING X	NORTHING	EASTING	HIGH PT PROTECTIVE CASE	HIGH PT INNER CASE	
Southern Perimeter							
S1101	484732.3	2064450.7	2803.2	3556.1	831.53	830.21	S1101
S1102	484691.9	2067598.2	2812.7	6703.8	809.52	809.13	S1102
S1103	484687.8	2067590.8	2808.4	6696.5	809.17	809.13	S1103
S1105	484792.2	2071088.8	2968.2	10192.4	840.36	839.08	S1105
S1106	484793.1	2071101.0	2969.2	10204.6	839.82	839.72	S1106
S1107	484860.1	2072643.5	3060.6	11745.8	812.09	812.08	S1107
S1108	484751.5	2073314.8	2962.6	12418.8	784.18	782.74	S1108
S1133	484744.6	2064454.8	2815.6	3560.0	828.92	828.29	S1133
S1147	484926.7	2066046.9	3022.9	5149.0	817.39	817.14	S1147
S1148	484690.1	2067097.1	2802.9	6203.6	803.70	803.69	S1148
S1149	485126.2	2068010.8	3253.4	7109.5	807.77	807.64	S1149
S1152A	484581.3	2067590.9	2701.9	6698.3	813.68	813.58	S1152A
S1152B	484581.4	2067583.5	2701.9	6690.9	813.30	813.15	S1152B
Northwest Perimeter							
S1109	488535.6	2064509.9	6607.0	3555.2	856.81	856.58	S1109
S1127	503377.9	2063312.3	21428.5	2123.0	880.39	880.35	S1127
S1128	504036.5	2062711.3	22077.5	1511.7	879.37	879.31	S1128
West Perimeter							
S1123	494499.0	2062374.6	12535.9	1325.8	868.87	868.79	S1123
S1126	500011.3	2063331.3	18062.6	2195.2	876.98	876.95	S1126
Existing Landfill							
S-85-1153	501452.9	2076372.2	19710.3	15211.6	908.12	908.00	S-85-1153
Magazine Area							
S1115	490444.8	2070338.9	8608.1	9353.3	863.86	863.37	S1115
S1116	490446.2	2070357.4	8609.9	9371.7	864.06	862.31	S1116

WISCONSIN STATE
MID-STATE PLANTS, INC.
PVC COVERING
BADGER GAIL AND VERTICAL COVERED
JANUARY, 1989

ITEM MONITORING WELL	WISCONSIN STATE PLANE COORDINATES		GRID BADGER PLANT COORDINATES		ELEVATION		ITEM MONITORING WELL
	NORTHING Y	EASTING X	NORTHING	EASTING	HIGH PT PROTECTIVE CASE	HIGH PT INNER CASE	
North Perimeter							
S1129	503569.4	2068120.7	21696.1	6927.7	913.13	913.12	S1129
S1130	504811.9	2071640.8	22994.1	10427.8	943.61	941.18	S1130
S1131	504812.7	2071623.7	22994.6	10410.6	943.40	942.17	S1131
S1132	502462.4	2072996.7	20666.3	11820.6	915.48	915.41	S1132
S1151	503686.2	2073451.7	21897.2	12256.2	893.54	893.43	S1151
Acid Spill Area							
NAN 81-01-A	498446.0	2070131.1	16605.1	9018.9	913.18	913.50*	NAN 81-01-A
NAN 81-01-D	498446.9	2070123.5	16605.8	9011.3	912.57	912.32	NAN 81-01-D
NAN 81-02-B	498486.8	2070255.1	16647.8	9142.2	914.51	914.99*	NAN 81-02-B
NAN 81-03-B	498429.9	2070286.1	16591.4	9174.2	914.89	915.21*	NAN 81-03-B
NAN 81-03-C	498413.1	2070282.9	16574.6	9171.3	914.71	915.02*	NAN 81-03-C
Southeast and Eastern Perimeter							
S1110	486475.5	2073300.4	4686.2	12377.1	813.15	813.12	S1110
S1111	487412.1	2075844.8	5662.9	14906.4	848.91	848.82	S1111
S1112	490048.1	2076744.1	8312.8	15763.9	838.31	838.29	S1112
S1114	491600.3	2079572.1	9909.5	18567.0	822.09	821.37	S1114
S1121	496294.1	2079125.3	14595.7	18046.1	815.85	815.43	S1121
Nitroglycerin Area							
S1119	496200.3	2072981.6	14404.8	11904.6	879.71	879.69	S1119
S1124	497865.2	2073549.8	16078.4	12446.4	879.94	879.83	S1124
S1125	496506.7	2067952.6	14631.5	6871.3	897.94	895.74	S1125
S1150	496771.1	2069331.6	14917.7	8246.0	897.54	897.50	S1150

* Note the PVC casing is up from Steel casing and the elevations are on top of the pipe with the PVC cover removed.

WISCONSIN STATE
DEPARTMENT OF NATURAL RESOURCES
Bureau of Geology and Geological Engineering
JANUARY, 1989

ITEM MONITORING WELL	WISCONSIN STATE PLANE COORDINATES		GRID DANGER PLANT COORDINATES		ELEVATION		ITEM MONITORING WELL
	NORTHING Y	EASTING X	NORTHING	EASTING	HIGH PT PROTECTIVE CASE	HIGH PT INNER CASE	
=====							
Rocket Area							
S1118	492932.3	2072319.0	11126.6	11293.8	875.08	874.99	S1118
S1120	493311.7	2075595.6	11557.8	14563.9	879.89	879.76	S1120
New Landfill							
NLN 82-02-A	495646.2	2077609.1	13923.9	16540.2	863.96	864.02	NLN 82-02-A
NLN 82-02-B	495644.6	2077621.3	13922.5	16552.5	863.85	863.84	NLN 82-02-B
NLN 82-02-C	495636.0	2077614.7	13913.8	16546.1	864.12	864.08	NLN 82-02-C
NLN 82-03-A	494952.2	2077079.7	13221.9	16021.9	883.97	883.95	NLN 82-03-A
NLN 82-03-B	494944.2	2077068.6	13213.4	16011.0	885.13	885.14	NLN 82-03-B
NLN 82-03-C	494952.7	2077066.0	13221.9	16008.2	884.96	884.75	NLN 82-03-C
NLN 82-04-A	494910.1	2077407.2	13184.7	16350.0	892.96	892.94	NLN 82-04-A
NLN 82-04-B	494897.4	2077411.2	13172.1	16354.2	893.61	893.57	NLN 82-04-B
NLN 82-04-C	494899.9	2077400.8	13174.4	16343.8	893.80	893.81	NLN 82-04-C

WILSON & ASSOCIATES, INC.
 (LTD) CONSULTING
 HORIZONTAL AND VERTICAL CONTROL
 MAY 1980

RECEIVED BY STAITS 16 JANUARY, 1982
 GULF PLANT COORDINATES
 NEW SCOTLAND

ITEM MONITORING WELL	POINT #	WISCONSIN STATE PLANE COORDINATES NORTHING Y	EASTING X	GRID BADGER PLANT COORDINATES * NORTHING * EASTING	HIGH PT. PROTECTIVE CASE	ELEVATION HIGH PT. INNER CASE	GROUND	ITEM MONITORING WELL	POINT #
S1134	76	501499.5	(2075517.0)	19743.4	14355.8	921.81	921.81	S1134	75
S1135	72	501589.5	2076130.3	19843.1	14967.6	926.03	925.99	S1135	72
S1136	80	502209.1	2074922.4	20443.6	13750.0	912.70	912.58	S1136	80
S1153	71	501453.1	2076372.2	19710.6	15211.6	908.12	908.02	S1153	71
EIN 82-01-A	81	502378.9	2074747.7	20610.6	13572.7	905.03	905.02	EIN 82-01-A	81
EIN 82-01-B	82	502396.3	2074753.9	20628.0	13578.7	904.72	904.75	EIN 82-01-B	82
EIN 82-01-C	83	502387.1	2074754.3	20618.9	13579.1	905.08	905.06	EIN 82-01-C	83
EIN 82-02-A	84	501918.2	2075972.6	20169.3	14804.7	915.98	916.00	EIN 82-02-A	84
EIN 82-02-B	85	501907.5	2075970.2	20158.6	14802.5	916.65	916.62	EIN 82-02-B	85
EIN 82-02-C	86	501913.2	2075976.0	20164.4	14808.2	916.20	916.19	EIN 82-02-C	86
EIN 82-03-A	73	501515.1	2075871.7	19764.9	14710.2	927.70	927.68	EIN 82-03-A	73
EIN 82-03-B	74	501500.7	2075859.9	19750.1	14698.6	927.43	927.45	EIN 82-03-B	74
EIN 82-03-C	75	501515.6	2075858.2	19764.9	14696.7	926.94	926.93	EIN 82-03-C	75
EIN 82-04-A	77	501782.2	2074921.8	20016.7	13756.2	923.74	923.72	EIN 82-04-A	77
EIN 82-04-B	78	501785.4	2074908.8	20019.7	13743.1	924.22	924.18	EIN 82-04-B	78
EIN 82-04-C	79	501799.3	2074913.6	20033.7	13747.7	923.74	923.73	EIN 82-04-C	79
DEM 82-01	87	500845.1	2074682.8	19075.9	13532.1	918.72	918.72	DEM 82-01	87
DEM 82-02	88	501146.6	2074472.6	19374.1	13317.1	920.15	920.16	DEM 82-02	88
DEM 82-01-A	89	500707.3	2074435.6	18934.2	13287.1	907.36	907.36	DEM 82-01-A	89
DEM 82-01-B	90	500710.7	2074447.1	18937.8	13298.5	907.83	907.80	DEM 82-01-B	90
S1122	91	500700.4	2074442.8	18927.5	13294.4	907.16	907.16	S1122	91
NAN 81-04-A	68	498335.5	2070483.1	16500.2	9372.6	925.42	925.22	NAN 81-04-A	68
NAN 81-04-B	69	498335.1	2070492.8	16499.8	9382.3	925.60	925.91	NAN 81-04-B	69
NAN 81-04-C	70	498335.1	2070475.2	16499.7	9364.7	924.94	925.25	NAN 81-04-C	70
NLN 82-01-A	95	495554.6	2077028.6	13823.2	15961.3	890.67	890.67	NLN 82-01-A	95
NLN 82-01-B	96	495554.7	2077022.0	13833.2	15954.5	891.28	891.29	NLN 82-01-B	96
NLN 82-01-C	97	495551.0	2077019.8	13819.5	15952.5	890.54	890.52	NLN 82-01-C	97
NLN 82-05-A	92	494908.7	2077680.8	13187.7	16623.6	899.94	899.90	NLN 82-05-A	92
NLN 82-05-B	93	494903.8	2077694.0	13183.0	16636.9	899.36	899.32	NLN 82-05-B	93
NLN 82-05-C	94	494916.2	2077691.0	13195.4	16633.7	898.28	898.20	NLN 82-05-C	94
S1113	99	491608.6	2079571.2	9918.0	18566.0	823.08	821.56	S1113	99
S1104	98	484801.5	2071094.2	2977.6	10197.8	839.72	839.21	S1104	98

* Formerly noted as
 DBI 82-01-A

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VIERBICHER ASSOCIATES, INC.

ARCHITECTURE • ENGINEERING

PLANNING • LAND SURVEYING

REEDSBURG, WISCONSIN

REPORT FOR
PROFESSIONAL SURVEYING SERVICES
HORIZONTAL AND VERTICAL
LOCATION SURVEY

BADGER ARMY AMMUNITION PLANT

Task Order Memorandum 002
U.S. Army Toxic and Hazardous Materials Agency
(USATHA)

Prepared for:

E.C. Jordan Co.
261 Commercial Street
P.O. Box 7050
Portland, Maine 04112

Prepared by:

Vierbicher Associates, Inc.
940 East Main Street
Reedsburg, WI 53959

January 2, 1990

**FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 002
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
USATHAMA - E.C. JORDAN CO.**

The services required for this project includes the horizontal and vertical locations for various monitoring wells and soil borings at Badger Army Ammunition Plant. The horizontal positions have been determined relative to the Universal Transverse Mercator (UTM) system per the NAD 27. The vertical locations are based on Mean Sea Level (MSL) from the 1929 General Adjustment.

The horizontal and vertical control shall be taken from existing control monuments and traverse control currently existing within the Army Ammunition Plant. This control information has been provided by the Army Ammunition Plant.

HORIZONTAL FIELD SURVEY

The horizontal location has been taken from the existing control or has been extended from said control into the survey areas. The equipment that was utilized for the horizontal control was a Lietz SET-4 electronic total station in combination with a Lietz SDR-22 electronic data collector. The grid factor for distances was keyed into the collector at a value of 0.9998919 this provides for an automatic reduction to grid distances required for geographic computations. The output produced by the data collector is based on Wisconsin State Plane Coordinates. A copy of the field notes generated by the data collector is attached as Appendix A. Due to equipment malfunction of the data collector some of the horizontal field data was gathered by manual field notes. These field notes are included under Appendix B. Multiple readings of horizontal angles and distances were taken to comply with required accuracies. This data was keyed into and adjusted through a surveying computation software program. The results of these computations are included under Appendix C.

VERTICAL FIELD SURVEY

The vertical location has also been taken from the existing control or has been extended from said control into the survey areas. The equipment that was used for the vertical survey was a Lietz B-1 automatic level. A copy of the field notes for the vertical survey is attached as Appendix B.

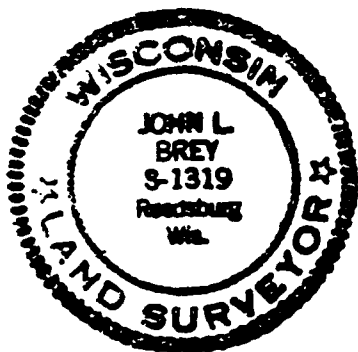
OFFICE COMPUTATIONS - REPORT GENERATION


The state plane coordinates determined by the data collector report was input into a batch file named ECJOR2PC. The file was then run through a program provided by National Ocean Service - National Geodetic Survey named GPPCGP. This program converts State Plane Coordinates to geographic positions (latitudes and longitude). The output from this run was placed in a batch file named ECJOR2GP. Finally this geographic position file was input through a National Ocean Service - National Geodetic Survey named UTMS. This converts the geographic position to the Universal Transverse Mercator System coordinates. The output file is named ECJOR2UT. The printout from this file list the UTM's for the wells and borings. A copy of the files generated are attached as Appendix D. The input format is detailed in the front of Appendix D. The report chart was then developed by integrating the vertical positions with the final UTM positions.

SURVEYOR'S CERTIFICATE

I, John L. Brey, Registered Land Surveyor, hereby certify that the above described location survey and the enclosed documentation are correct to the best of my knowledge and belief.

Dated this 2nd day of January, 1990.




John L. Brey, RLS-1319
Vierbicher Associates, Inc.
940 East Main Street
Reedsburg, WI 53959

**MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
TASK ORDER MEMORANDUM # 2**

OLEUM PLANT AND POND

MONITORING WELL OR SOIL BORING	UTM NORTHING (Y) METER	UTM EASTING (X) METER	GROUND SURFACE	ELEVATIONS WELL RISER	TOP PROTECTIVE CASING	MONITORING WELL OR SOIL BORING
OPB-89-01	4,806,589.3	278,473.5	929.1			OPB-89-01
OPB-89-02	4,806,712.2	279,061.7	875.3			OPB-89-02
OPB-89-03	4,806,681.2	279,113.9	870.1			OPB-89-03
OPB-89-04	4,806,655.3	279,098.0	872.4			OPB-89-04
OPB-89-05	4,806,681.0	279,160.4	883.6			OPB-89-05
OPB-89-06	4,806,613.5	278,662.1	932.8			OPB-89-06
OPB-89-07	4,806,605.1	278,621.4	932.8			OPB-89-07
OPB-89-08	4,806,600.5	278,584.4	933.3			OPB-89-08
OPB-89-09	4,806,585.6	278,519.9	932.2			OPB-89-09
OPB-89-10	4,806,571.3	278,565.8	932.8			OPB-89-10
OPB-89-11	4,806,529.2	278,566.2	932.8			OPB-89-11
OPB-89-12	4,806,539.6	278,586.0	925.6			OPB-89-12
OPB-89-13	4,806,516.3	278,471.9	929.6			OPB-89-13
OPM-89-01	4,806,487.9	278,550.8	924.3	925.99	926.23	OPM-89-01
OPM-89-02	4,806,578.0	279,241.0	877.6	879.46	879.61	OPM-89-02
OPM-89-03	4,806,289.5	278,932.9	928.2	929.75	929.98	OPM-89-03

NITROGLYCERINE POND

NPM-89-01	4,804,671.6	279,174.7	861.5	862.77	863.03	NPM-89-01
-----------	-------------	-----------	-------	--------	--------	-----------

ROCKET PASTE AREA

RPM-89-01	4,803,845.3	279,502.4	886.2	888.65	888.83	RPM-89-01
RPM-89-02	4,803,851.0	279,100.8	873.0	874.76	874.95	RPM-89-02

OLD ACID AREA

OAB-89-01	4,805,863.8	276,115.0	873.5			OAB-89-01
OAB-89-02	4,805,805.0	276,121.7	876.8			OAB-89-02
OAB-89-03	4,805,804.8	279,050.1	875.0			OAB-89-03
OAM-89-01	4,805,744.0	276,076.2	872.2	874.38	874.47	OAM-89-01
OAM-89-02	4,805,673.4	276,115.5	872.4	874.91	875.14	OAM-89-02

OLD FUEL OIL TANK

FTB-89-01	4,805,640.9	276,062.2	874.4			FTB-89-01
FTM-89-01	4,305,592.7	276,061.9	872.4	874.27	874.46	FTM-89-01

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APPENDIX A

FIELD DATA PRINTOUT FROM SDR-22

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CR22 V03-01.7 Copyright 1988 by Datacom Group Ltd. All rights reserved.
19-Dec-89 07:53

Angle : Degrees Dist : Feet Press: Inch Hg
Temp : Fahrenht Coord : N-E-Elv

Job id JORDAN

SCALE S.F. 0.999891900

LTE CP Sea level crn:N

N E CP C and R crn : N

NOTE CP Atmos crn : Y

E TS 14-Dec-89 09:43

INTR SET EDM <No Text> Serial no 093118
Theo <No Text> Serial no 000000 Mount: not applic
V.obs: Zenith EDM o/s <Null> Refl o/s <Null>
P.C. mm 0.000

0029 Nrth 501768.430 East 2074666.280 Elv <Null>
Code MON

KI 0028 Nrth 501744.430 East 2076165.990 Elv <Null>
Code MON

E TS 14-Dec-89 10:05

STN TV 0028 Nrth 501744.430 East 2076165.990 Elv <Null>
Theo ht <Null> Code MON

ATMOS Press 29.50 inHg Temp 5.0 F

F1 0028-0029 Dist <Null> V.obs 90-11'15" H.obs 0-00'00"

OBS MD 0028-0300 Dist 2619.070 V.obs <Null> H.obs <Null>
Code Mult dist#1

OBS MD 0028-0300 Dist 2619.070 V.obs <Null> H.obs <Null>
Code Mult dist#2

UJS F1 0028-0300 Dist 2619.070 V.obs 90-30'50" H.obs 55-25'30"
Code PK

GET Target ht 4.700

0028-0029 Dist <Null> V.obs 90-10'00" H.obs 359-59'55"
Code MON

JORDAN.FRN

Dec 19, 1989

7:58a

Page 2

S MD 0028-0300	Dist 2619.060 Code Mult dist#1	V.obs <Null>	H.obs <Null>
S MD 0028-0300	Dist 2619.060 Code Mult dist#2	V.obs <Null>	H.obs <Null>
GET	Target ht <Null>		
OBS F1 0028-0300	Dist 2619.060 Code PK	V.obs 90-30'55"	H.obs 55-25'30"
SET TV 0028	Count 002		
S MC 0028-0029	Dist <Null> Code MON	V.ang 90-11'15"	Azmth 270-55'00"
S MC 0028-0300	Dist 2618.992 Code PK	V.ang 90-30'53"	Azmth 326-20'33"
S TV 0300	Nrth 503924.065 Code PK	East 2074714.690	Elv <Null>
B TV 0028-0300	Azmth 326-20'33"	H.obs 55-25'30"	
STN TV 0300	Nrth 503924.065 Theo ht <Null>	East 2074714.690 Code PK	Elv <Null>
NOTE TS	14-Dec-89 10:47		
S F1 0300-0028	Dist <Null> Code MON	V.obs 89-36'20"	H.obs 0-00'00"
S MD 0300-0301	Dist 1296.380 Code Mult dist#1	V.obs <Null>	H.obs <Null>
OBS MD 0300-0301	Dist 1296.400 Code Mult dist#2	V.obs <Null>	H.obs <Null>
OBS F1 0300-0301	Dist 1296.390 Code PK	V.obs 89-41'35"	H.obs 116-27'55"
OBS F1 0300-0028	Dist <Null> Code MON	V.obs 89-33'20"	H.obs 359-59'55"
OBS MD 0300-0301	Dist 1296.380 Code Mult dist#1	V.obs <Null>	H.obs <Null>
OBS MD 0300-0301	Dist 1296.400 Code Mult dist#2	V.obs <Null>	H.obs <Null>
S F1 0300-0301	Dist 1296.390	V.obs 89-41'30"	H.obs 116-38'00"

(SLOPE GROUND DIST)

 Horiz Snd 1
 2618.603

Code PK

SFT TV 0300

Count 002

J MC 0300-0028

Dist <Null>
Code MON

V.ang 89-34'50"

Azimuth 146-20'33"

J MC 0300-0301

Dist 1296.354
Code PK

V.ang 89-41'33"

Azimuth 262-58'33"

TV 0301

Nrth 503765.557
Code PK

East 2073428.224

Elv <Null>

M E TS

14-Dec-89 11:20

STN TV 0301

Nrth 503765.557
Theo ht <Null>East 2073428.224
Code PK

Elv <Null>

JBS F1 0301-0300

Dist <Null>
Code PK

V. obs 90-18'45"

H. obs 0-00'00"

JBS MD 0301-0302

Dist 395.110
Code Mult dist#1

V. obs <Null>

H. obs <Null>

0301-0302

Dist 395.080
Code Mult dist#2

V. obs <Null>

H. obs <Null>

F1 0301-0302

Dist 395.095
Code OFM8902

V. obs 94-12'40"

H. obs 169-02'40"

TV 0301

Count 002

OBS MC 0301-0300

Dist <Null>
Code PK

V.ang 90-18'45"

Azimuth 82-58'33"

OBS MC 0301-0302

Dist 395.084
Code OFM8902

V.ang 94-12'40"

Azimuth 252-01'13"

OBS F1 0301-0300

Dist <Null>
Code PK

V. obs 90-21'05"

H. obs 0-00'00"

JBS MD 0301-0303

Dist 683.450
Code Mult dist#1

V. obs <Null>

H. obs <Null>

JBS MD 0301-0303

Dist 683.430
Code Mult dist#2

V. obs <Null>

H. obs <Null>

F1 0301-0303

Dist 683.440
Code OFB8903

V. obs 92-06'40"

H. obs 204-36'15"

0301

Count 002

JORDAN.PRN

Dec 19, 1989

7:58a

Page 4

3 MC 0301-0300	Dist <Null> Code PK	V.ang 90-21'05"	Azmth 82-58'33"
3 MC 0301-0303	Dist 683.421 Code OP88905	V.ang 92-06'40"	Azmth 287-34'48"
OPS F1 0301-0300	Dist <Null> Code PK	V.obs 90-20'45"	H.obs 0-00'00"
NOTE TS 14-Dec-89 11:35			
3 MD 0301-0304	Dist 861.080 Code Mult dist#1	V.obs <Null>	H.obs <Null>
3 MD 0301-0304	Dist 861.010 Code Mult dist#2	V.obs <Null>	H.obs <Null>
3 F1 0301-0304	Dist 861.045 Code OP88904	V.obs 92-09'45"	H.obs 134-41'10"
r TV 0301	Count 002		
OBS MC 0301-0300	Dist <Null> Code PK	V.ang 90-20'45"	Azmth 82-58'33"
UBS MC 0301-0304	Dist 861.021 Code OP88904	V.ang 92-09'45"	Azmth 277-39'43"
UBS F1 0301-0300	Dist <Null> Code PK	V.obs 90-11'25"	H.obs 0-00'00"
3 MD 0301-0305	Dist 828.930 Code Mult dist#1	V.obs <Null>	H.obs <Null>
3 MD 0301-0305	Dist 828.920 Code Mult dist#2	V.obs <Null>	H.obs <Null>
3 F1 0301-0305	Dist 828.875 Code OP88903	V.obs 92-04'45"	H.obs 201-06'20"
r TV 0301	Count 002		
OBS MC 0301-0300	Dist <Null> Code PK	V.ang 90-11'25"	Azmth 82-58'33"
UBS MC 0301-0305	Dist 828.952 Code OP88903	V.ang 92-04'45"	Azmth 284-04'53"
UBS F1 0301-0300	Dist <Null> Code PK	V.obs 90-21'30"	H.obs 0-00'00"
3 MD 0301-0306	Dist 1022.960	V.obs <Null>	H.obs Null

Code Mult dist#1

MD 0301-0306	Dist 1022.960 Code Mult dist#2	V.obs <Null>	H.obs <Null>
F1 0301-0306	Dist 1022.960 Code DPB8902	V.obs 91-52'35"	H.obs 203-54'30"
TV 0301	Count 002		
C 0301-0300	Dist <Null> Code PK	V.ang 90-21'30"	Azmth 82-58'33"
C 0301-0306	Dist 1022.931 Code DPB8902	V.ang 91-52'35"	Azmth 286-53'03"
T 0301	Count 006		
MC 0301-0300	Dist <Null> Code PK	V.ang 90-19'42"	Azmth 82-58'33"
MC 0301-0306	Dist 1022.931 Code DPB8902	V.ang 91-52'35"	Azmth 286-53'03"
01-0305	Dist 828.852 Code DPB8903	V.ang 92-04'45"	Azmth 284-04'53"
0301-0304	Dist 861.021 Code DPB8904	V.ang 92-09'45"	Azmth 277-39'43"
0301-0303	Dist 683.421 Code DPB8905	V.ang 92-06'40"	Azmth 287-34'48"
0301-0302	Dist 395.084 Code DPM8902	V.ang 94-12'40"	Azmth 252-01'13"
0306	Nrth 504062.464 Code DPB8902	East 2072450.018	Elv <Null>
T 0305	Nrth 503967.062 Code DPB8903	East 2072624.894	Elv <Null>
IV 0304	Nrth 503880.261 Code DPB8904	East 2072575.590	Elv <Null>
V 0303	Nrth 503971.813 Code DPB8905	East 2072777.234	Elv <Null>
V 0302	Nrth 503643.945 Code DPM8902	East 2073053.488	Elv <Null>
01-0306	Azmth 286-53'03"	H.obs 203-54'30"	

Horn Grid 12.5

AR 203°54'30"

1022.960

AR 201°06'20"

822.310

AR 201°01'15"

360.115

AR 204°36'15"

682.773

AR 101°02'15"

395.084

VLE TS	14-Dec-89 11:50		
34 TV 0301-0306	Azmth 286-53'03"	H.obs 203-54'30"	
Jas F1 0301-0300	Dist <Null> Code PK	V.obs 90-19'30"	H.obs 0-00'00"
JLS MD 0301-0307	Dist 2785.010 Code Mult dist#1	V.obs <Null>	H.obs <Null>
J J MD 0301-0307	Dist 2785.010 Code Mult dist#2	V.obs <Null>	H.obs <Null>
J F1 0301-0307	Dist 2785.010 Code PK	V.obs 89-32'25"	H.obs 179-47'30"
J F1 0301-0300	Dist <Null> Code PK	V.obs 90-20'30"	H.obs 359-59'45"
J MD 0301-0307	Dist 2785.000 Code Mult dist#1	V.obs <Null>	H.obs <Null>
J MD 0301-0307	Dist 2784.990 Code Mult dist#2	V.obs <Null>	H.obs <Null>
JPS F1 0301-0307	Dist 2784.995 Code PK	V.obs 89-32'30"	H.obs 179-47'20"
NOTE TS	14-Dec-89 12:05		
J J F1 0301-0300	Dist <Null> Code PK	V.obs 90-22'05"	H.obs 359-59'50"
J J MD 0301-0307	Dist 2785.010 Code Mult dist#1	V.obs <Null>	H.obs <Null>
J J MD 0301-0307	Dist 2784.980 Code Mult dist#2	V.obs <Null>	H.obs <Null>
J J F1 0301-0307	Dist 2784.995 Code PK	V.obs 89-32'20"	H.obs 179-47'15"
STV TV 0301	Count 002		
Jas MC 0301-0300	Dist <Null> Code PK	V.ang 90-20'42"	Azmth 82-58'33"
JLS MC 0301-0307	Dist 2784.922 Code PK	V.ang 89-32'25"	Azmth 262-46'03"
J J F1 0301-0300	Dist <Null>	V.obs 90-20'35"	H.obs 0-00'00"

Code PK

US MD 0301-0308	Dist 84.240 Code Mult dist#1	V.obs <Null>	H.obs <Null>
US MD 0301-0308	Dist 84.260 Code Mult dist#2	V.obs <Null>	H.obs <Null>
US FI 0301-0308	Dist 84.250 Code 9831151	V.obs 100-20'40"	H.obs 20-31'55"
TV 0301	Count 002		
MC 0301-0300	Dist <Null> Code PK	V.ang 90-20'35"	Azmth 82-52'33"
MC 0301-0308	Dist 84.248 Code 9831151	V.ang 100-20'40"	Azmth 163-30'28"
TE TS	14-Dec-89 12:20		
TV 0301	Count 003		
MC 0301-0300	Dist <Null> Code PK	V.ang 90-20'38"	Azmth 82-58'33"
MC 0301-0308	Dist 84.248 Code 9831151	V.ang 100-20'40"	Azmth 163-30'28"
MC 0301-0307	Dist 2784.922 Code PK	V.ang 89-32'25"	Azmth 262-46'03"
TV 0308	Nrth 503686.097 Code 9831151	East 2073451.749	Elv <Null>
TV 0307	Nrth 503414.997 Code PK	East 2070665.847	Elv <Null>
TV 0307	Nrth 503414.997 Theo ht <Null>	East 2070665.847 Code PK	Elv <Null>
TE TS	14-Dec-89 13:37		
TP 0307	Nrth 503414.997 Theo ht <Null>	East 2070665.847 Code PK	Elv <Null>
TP 0307-0301	Azmth 82-46'03"	H.obs 0-00'00"	
FI 0307-0301	Dist <Null> Code PK	V.obs 90-33'35"	H.obs 0-00'00"
FI 0307-0309	Dist 201.110	V.obs <Null>	H.obs <Null>

JORDAN.PRN

Dec 19, 1989

7:58a

Page 8

Code Mult dist#1 *GR10 DIST = 201.036 AR 54°37'30"*
Az = 137°23'30"

JS MD 0307-0309 Dist 201.110 V.obs <Null> H.obs <Null>
Code Mult dist#2

JS TP 0309 *10.14 -0.21*
Nrth 503267.033 East 2070801.943 Elv <Null> *100.5*
Code DPMB901 *137.5*
Elev 200.7

JS MD 0307-0310 Dist 246.380 V.obs <Null> H.obs <Null>
Code Mult dist#1

JS MD 0307-0310 Dist 246.380 V.obs <Null> H.obs <Null>
Code Mult dist#2 *GR10 DIST = 246.778 AR 1°14'05"*
Az = 84°00'08"
25.0

JS TP 0310 Nrth 503440.782 East 2070911.274 Elv <Null> *246.2*
Code DPB8912 *-0.21*
Elev 136.7

JS MD 0307 Dist 141.280 V.obs <Null> H.obs <Null>
Code Mult dist#1

JS MD 0307 Dist 141.290 V.obs <Null> H.obs <Null>
Code Mult dist#2

JS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#1

ORS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#2

ORS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#1

ORS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#2

JS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#1

JS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#2

TE TS 14-Dec-89 13:52

JS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#1

JS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#2

JS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#1

MD 0307	Dist 141.230 Code Mult dist#2	V.obs <Null>	H.obs <Null>
MD 0307	Dist 141.230 Code Mult dist#1	V.obs <Null>	H.obs <Null>
MD 0307	Dist 141.230 Code Mult dist#2	V.obs <Null>	H.obs <Null>
TP 0311	Nrth <Null> Code OPB8913	East <Null>	Elv <Null>
TP 0307-0301	Azmth 82-46'03"	H.obs <Null>	
F1 0307-0301	Dist <Null> Code PK	V.obs 90-30'05"	H.obs <Null>
TP 0312	Nrth <Null> Code OPB8913	East <Null>	Elv <Null>

nd of Report *

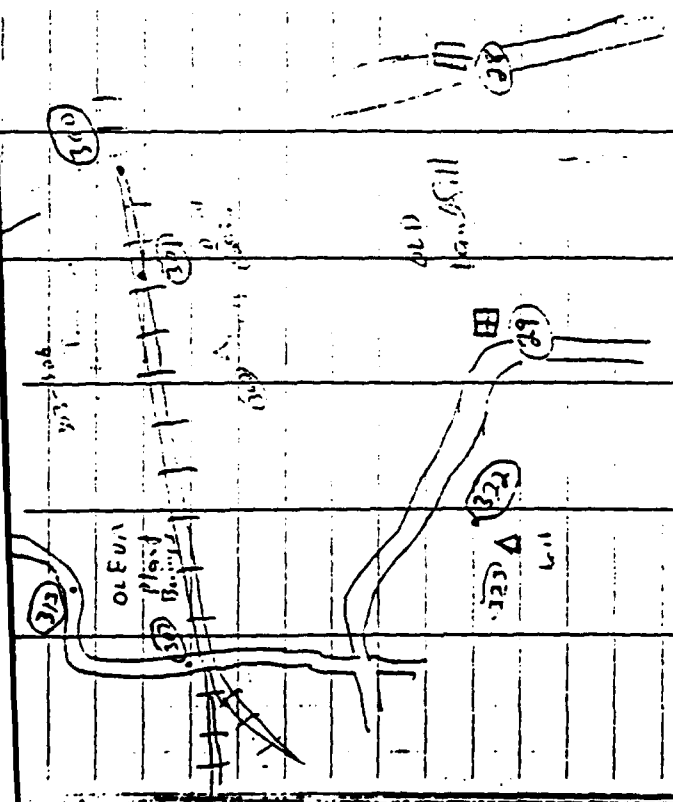
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APPENDIX B

HORIZONTAL AND VERTICAL SURVEY FIELD NOTES

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F. C. Jordan
 Lowell + Bellingham
 12/11/89
 Bellingham 5⁰
 Schneider/Cintak



300	PK in E-7	8905	Per Rd
301	PK in E-7	8905	Per Rd
302	Well	OPB	8905
303	Boring	OPB	8905
304	Boring	OPB	8905
305	Boring	OPB	8905
306	Boring	OPB	8905

308	Well	S 83	1151	
309	Well	OM	8901	
310	Boring	OPB	8912	
311	"	OPB	8913	
312	"	OPB	8909	
313	PK	Ed Bare	1151	(11. Road)
314	PK	Ref	8911	to 200' W of 1151
315	Boring	OPB	8910	
316	"	OPB	8911	
317	"	OPB	8908	
318	"	OPB	8907	
319	"	OPB	8901	
320	"	OPB	8906	
321	PK	Ed Bare	1151	to 200' W of 1151
322	"	Ed Bare	1151	to 200' W of 1151
323	"	Ed Bare	1151	to 200' W of 1151
324	"	Ed Bare	1151	to 200' W of 1151
325	"	Ed Bare	1151	to 200' W of 1151
326	"	Ed Bare	1151	to 200' W of 1151

301/307/312	17	301/307/312	17
301/307/312	294°33'05"	301/307/312	294°33'05"
301/313	118°41'16"	301/313	118°41'16"
307/313/311	162°47'30"	307/313/311	162°47'30"
313/311	64°07'00"	313/311	64°07'00"
307/313/315	35°5'31"	307/313/315	35°5'31"
311/316	32°0'18"	311/316	32°0'18"
317/311	341°29"	317/311	341°29"
318/317	32°07'00"	318/317	32°07'00"
319/317	1°49"	319/317	1°49"
313/318/320	91°54"	313/318/320	91°54"
313/311/321	95°26'40"	313/311/321	95°26'40"
314/321	71°53'20"	314/321	71°53'20"
314/321/3	31°25"	314/321/3	31°25"
321/3	198°21'19"	321/3	198°21'19"
321/3	201°05'55"	321/3	201°05'55"

TP 1	0.40	92703	FS	92763
TP 2	0.26	90602	14.16	89976
TP 3	2.62	89816	10.48	89554
TP 4	1.04	91004	09.68	89720
TP 5	6.32	90928	7.08	90276
TP 6	7.53	91472	2.09	90719
TP 7	5.37	91103	11.59	91033
TP 8			12.31	89869
TP 9			5.15	90588

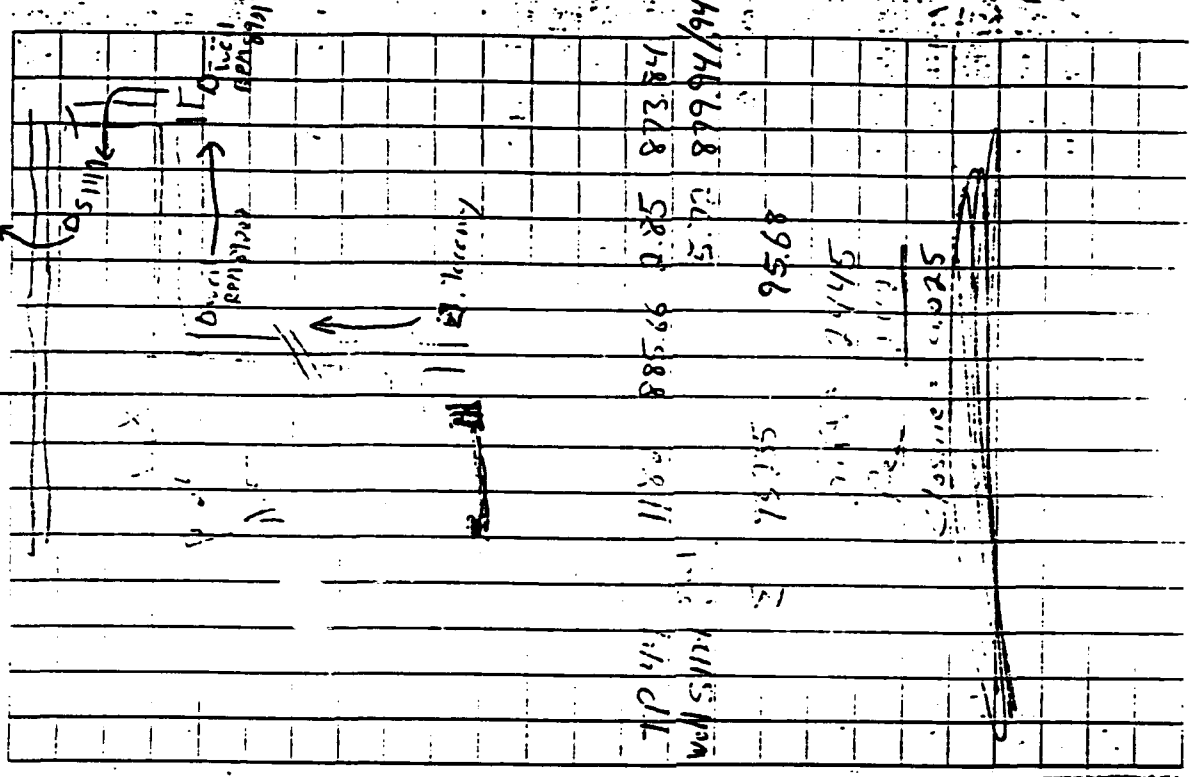
TP 8	SIDE	Loop	898.64
S23 1151	0.80	899.49	893.56/54
TP 10	1.38	894.94	5.93
TP 10	9.02	890.80	13.16
TP 10			11.198
H.P. PVC			11.31
			13.18
TP 11	13.78	903.95	890.17
TP 12	1.15	910.52	903.07
TP 9			4.64
	MAIN Loop		
TP 9	4.64	910.52	905.88
TP 13			3.00
	SIDE Loop		
TP 10/13	0.28	907.80	907.52
TP 14	0.64	894.68	13.76
TP 14		884.94	11.10
Boiling	1.36		14.82
Boiling			9.60
Boiling			12.56
TP 15	13.10	896.33	2.01
TP 16	12.99	907.75	1.57
TP 13			0.24
	SIDE Loop		
	10.67		907.52

TP 11	MAIN	Loop	
11	7.73	915.25	907.52
11	8.67	922.945	914.295
11	7.85	929.20	923.354
TP 11			926.295
	SIDE	Loop	
TP 11	10.30	936.59	926.295
OPB 8106			3.81
OPB 8107			3.80
TP 11	3.0	938.10	935.00
OPB 8108			11.83
OPB 8111			5.30
OPB 8110			5.30
TP 11	6.12	938.65	931.73
OPB 8109			6.45
OPB 810			9.50
OPB 8112			9.00
TP 11	5.38	931.13	925.75
OPB 8101			4.90
			5.14
			6.78
Boiling	OPB 8110		5.53
TP 12	6.20	932.43	926.23
TP 9			6.11

8.975

Well	Depth	Time	Temp	Pressure	Flow	Notes
TP19 R	8.11	932.425	926.285			
TP22	8.11	940.005	931.565			
TP24	9.11	948.035	938.865			
TP25	11.51	959.505	934.865			
Well OPN 84			929.98			
PUC			929.75			
Gnd			928.2			
TP26	2.51	936.245	933.575			
TP27	0.66	922.88	922.22			
TP28	1.56	924.34	914.78			
S1112 Steel Coils			915.46/48			
TP29	2.09	931.12	924.03			
TP30	4.38	923.78	919.40			
TP31	7.21	926.13	918.89			
D11 E 17.5	12.92		922.42			
DIFF IN HANDS = 2.21			3.71			
ROCKEY			130.15			
#324 Well		NP11.8901				
#325 Spike		hill-Rockit A				
#326 Well		RPM 3902				
#327 Spike		hill E 17.5				
#328		RPM 8901				

651024
KQ NPM 8901



STA	BS	HT	FS	Elev
Mercury	2.16	885.82		882.36
TP 32	2.15	887.67	7.60	878.22
TP 33	2.50	887.37	2.80	884.87
TP 34	2.76	881.55	8.58	878.79
Well RPH 8'01 PVC			6.79	874.76
"			8.50	873.0
"	4.52	879.47	6.60	874.95
TP 35	6.32	883.79	2.00	877.47
TP 36	8.43	888.97	3.01	880.55
Well RPH 8'01 PVC			0.32	888.65
"			2.75	886.2
"	2.45	891.28	0.11	888.83
TP 37	4.31	889.33	6.21	884.99
TP 38	4.23	885.08	8.48	880.85
TP 39 (144 No)	4.25	880.74	8.35	876.73
TP 40	5.50	881.07	5.17	875.57
S1119			1.37	8710.71
TP 41	5.46	884.51	2.03	879.05
TP 42	7.01	878.89	6.63	877.88
TP 43	8.35	873.09	9.15	869.74
Well NPM 8'01 PVC			10.32	862.77
"			11.62	861.5
"	13.65	876.69	10.06	863.03

STA	BS	HI	FS	LI
Comm	5.98	880.46		874.48
TP 45	5.92	880.98	5.40	875.06
TP 46	4.08	881.52	3.51	877.44
TP 47	4.19	876.94	8.71	872.75
Well FTR 8901			2.48	874.46
"			2.61	874.27
"			4.51	872.41
TP 48	4.79	877.24	4.19	872.45
PPB 8901			2.85	874.41
Well OAM 8902			2.10	875.11
"			2.33	874.91
"			4.85	872.41
Well OAM 8901			2.86	874.38
"			5.05	872.2
"			2.77	874.47
OAB 8903			5.66	875.0
OAB 8901			7.11	873.5
OAB 8902			3.87	876.8
TP 49	4.02	881.77	2.89	877.75
TP 50	5.14	881.27	5.64	876.13
TP 51	5.15	882.39	4.01	877.26
TP 52 (PA)	3.39	880.43	5.35	877.04
TP 41	5.32	880.38	5.37	875.06
			5.51	874.48

Costs = 0.015

APPENDIX C

SURVEY TRAVERSE COPUTATIONS AND ADJUSTMENTS

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A	3			504904.8300	2070001.3100
	28			501744.4300	2076165.9900
A	29			501768.4300	2074666.2800
TART	28			501744.4300	2076165.9900
	300	NW 33 39 27.0	2618.886	503924.3004	2074714.5324
RT	28			501744.4300	2076165.9900
R	300	NW 33 39 27.0	2618.603	503924.0648	2074714.6692
	301	SW 82 58 33.0	1296.195	503765.5558	2073428.2225
	307	SW 82 46 3.0	2784.531	503414.9939	2070665.8468
K	313	NE 17 19 8.0	748.332	504129.0986	2070888.6174
	314	NE 0 6 40.0	640.637	504770.0344	2070889.2536
R	321	NW 86 26 42.0	713.243	504814.2603	2070177.9892
	3	NW 62 52 17.0	198.199	504904.6369	2070001.5950
		NW 55 53 13.4	0.344	504904.8300	2070001.3100

PRECISION RATIO = 1 : 26141

IPASS RULE ADJUSTMENT	28			501744.4300	2076165.9900
	300	NW 33 39 30.0	2618.696	503924.1210	2074714.6063
J	301	SW 82 58 38.2	1296.232	503765.6398	2073428.0986
	307	SW 82 46 8.2	2784.611	503415.1376	2070665.6347
AJ	313	NE 17 19 0.4	748.340	504129.5584	2070888.3815
	314	NE 0 6 33.5	640.651	504770.2079	2070889.6036
	321	NW 86 26 38.0	713.266	504814.4491	2070177.7105
J	3	NW 62 52 16.1	198.207	504904.8300	2070001.3100

START	300			503924.1210	2074714.6063
		SW 82 58 38.2	1296.232	503765.6398	2073428.0986
	302	SW 72 1 18.2	393.975	503644.0368	2073053.3600
		NW 72 25 6.9	622.383		

304	NW	75	55	1.8	828.217	503680.3633	2072373.4673
305						503967.1653	2072624.7737
306	NW	73	6	51.9	1022.272	504062.5706	2072449.9000
308	SE	16	29	26.8	82.870	503686.1786	2073451.6221
307	SW	82	46	8.2	2784.611	503415.1376	2070665.6347
309	SE	42	36	21.8	201.036	503267.1700	2070801.7268
310	NE	84	0	13.2	246.778	503440.9173	2070911.0624
311	SW	63	1	8.1	141.200	503351.0757	2070539.8034
312	NE	7	52	8.2	170.340	503563.9736	2070688.9555
313	NE	17	19	0.4	748.340	504129.5584	2070888.3815
355	SE	76	37	47.7	266.020	504068.0439	2071147.1915
315	SW	12	50	0.4	266.020	503870.1836	2070829.2938
316	SW	7	35	0.4	400.790	503732.2738	2070835.4893
317	SE	1	11	59.6	489.360	503640.3057	2070898.6289
ART							
307						503415.1376	2070665.6347
313	NE	17	19	0.4	748.340	504129.5584	2070888.3815
319	SW	33	8	0.4	643.870	503590.3818	2070536.4480
318	SE	15	33	59.6	487.660	503659.7860	2071019.2488
320	NE	76	20	0.4	136.420	503692.0181	2071151.8063
ART							
28						501744.4300	2076165.9900
29	NW	83	4	59.4	1499.902	501768.4300	2074666.2800
322	NW	67	59	2.4	2728.958	502791.4220	2072136.3195
323	SW	24	23	57.6	142.300	502661.6311	2072077.5362
EA						496506.0900	2073031.9900
9						496412.0600	2076909.4500
10							
ART							
10						496412.0600	2076909.4500
IN	NW	88	36	39.0	3878.600	496506.0900	2073031.9900
9							
324	NE	1	53	44.0	881.505	497387.1126	2073061.1480
325	SE	19	21	24.0	1551.339	495042.4426	2073546.1778
326	SW	60	43	6.1	722.862	494688.8885	2072915.6788
327	SE	84	32	27.0	722.025	494973.7517	2074264.9278

LN	329			498494.6500	2063570.8600
	330			498467.5100	2065207.1500
LN	329	NW 89 2 59.2	1636.515	498467.5100	2065207.1500
	331	NW 27 20 52.2	849.818	498494.6500	2063570.8600
S	332	NE 0 43 39.8	1038.578	499249.4874	2063180.4612
R	333	NW 0 1 9.2	1526.405	500287.9817	2063193.6521
	335	SW 59 14 15.8	467.420	500775.8923	2063179.9490
SS	336	SW 82 36 45.8	261.890	500536.8177	2062778.2965
	337	NW 61 17 49.2	329.140	500742.2197	2062920.2328
S	338	SW 85 2 5.8	496.340	500933.9682	2062391.2534
				500732.9350	2062685.4715
ST RT	331	NE 0 43 39.8	1038.578	499249.4874	2063180.4612
	332	SW 86 30 4.6	381.459	500287.9817	2063193.6521
T	334	SW 15 45 54.3	234.170	500264.7031	2062812.9041
US	339	SW 45 28 19.8	95.990	500039.3418	2062749.2809
	341	NE 66 7 14.9	112.160	500197.3895	2062744.4718
				500310.1065	2062915.4633
LJST	3			504904.8300	2070001.3100
	9			496506.0900	2073031.9900
	10			496412.0600	2076909.4500
	28			501744.4300	2076165.9900
	29			501768.4300	2074666.2800
	300			503924.1210	2074714.6063
	301			503765.6398	2073428.0986
	302			503644.0368	2073053.3600
	303			503971.9123	2072777.1140
	304			503880.3653	2072575.4673
	305			503967.1653	2072624.7737
	306			504062.5706	2072449.9000
	307			503415.1376	2070665.6347
	308			503686.1786	2073451.6221
	309			503267.1700	2070801.7268
	310			503440.9173	2070911.0624
				503351.0757	2070539.8034
				503583.8736	2070688.9555
	313			504129.5584	2070888.3815
	314			504770.2079	2070999.6036

316	503732.2738	2070835.4893
317	503640.3057	2070898.6289
318	503659.7860	2071019.2489
319	503590.3818	2070536.4480
320	503692.0181	2071151.9063
321	504814.4491	2070177.7105
322	502791.4220	2072136.3195
323	502661.8311	2072077.5362
324	497387.1126	2073061.1480
325	495042.4426	2073546.1778
326	494688.8685	2072915.6788
327	494973.7517	2074264.9279
328	494717.4583	2074232.6982
329	498494.6500	2063570.8600
330	498467.5100	2065207.1500
331	499249.4874	2063180.4612
332	500287.9817	2063193.6521
333	500775.8923	2063179.9490
334	500264.7031	2062812.9041
335	500536.8177	2062778.2965
336	500742.2197	2062920.2328
337	500933.9682	2062891.2534
338	500732.9350	2062685.4715
339	500039.3418	2062749.2809
340	500197.3895	2062744.4718
341	500310.1065	2062915.4633

ORDINATES STORED IN FILE JORDAN2

DATA DISK #4

APPENDIX D

**COMPUTER INPUT - OUTPUT FILES
UTM CONVERSION FILES**

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110*81*	OPB-89-01	2070536448	5035903824803
0020*81*	OPB-89-02	2072449900	5040625714803
000030*81*	OPB-89-03	2072624774	5039671654803
140*81*	OPB-89-04	2072575467	5038803654803
0050*81*	OPB-89-05	2072777114	5039719124803
000060*81*	OPB-89-06	2071151806	5036920184803
170*81*	OPB-89-07	2071019249	5036597864803
180*81*	OPB-89-08	2070899629	5036403064803
00090*81*	OPB-89-09	2070688955	5035838744803
000*81*	OPB-89-10	2070829294	5038701844803
10*81*	OPB-89-11	2070835489	5037322744803
0120*81*	OPB-89-12	2070911062	5034409174803
000030*81*	OPB-89-13	2070539803	5033510764803
40*81*	OPM-89-01	2070801727	5032671704803
150*81*	OPM-89-02	2073053360	5036440374803
000160*81*	OPM-89-03	2072077536	5026618314803
70*81*	OPM-89-01	2073061148	4973871134803
80*81*	OPM-89-01	2074232698	4947174584803
00190*81*	OPM-89-02	2072915679	4946889854803
00000*81*	OAB-89-01	2062891253	5009339584803
10*81*	OAB-89-02	2062920233	5007422204803
0220*81*	OAB-89-03	2062685472	5007329354803
000030*81*	OAM-89-01	2062778296	5005368184803
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00020*81*	FTB-89-01	2062744472	5001973904803
00020*81*	FTM-89-01	2062749291	5000393424803

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020*80*000 OPB-89-02	43225771317N089433890411W
000030*80*000 OPB-89-03	43225676517N089433654027W
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050*80*000 OPB-89-05	43225680712N089433447714W
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070*80*000 OPB-89-07	43225378049N089435829492W
080*80*000 OPB-89-08	43225359130N089435992913W
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000190*80*000 RPM-89-02	43212511131N089433301405W
01200*80*000 QAB-89-01	43222709937N089454846402W
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000230*80*000 QAM-89-01	43222317978N089455000865W
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0250*80*000 FTB-89-01	43221982811N089455047962W
000260*80*000 FTM-89-01	43221626689N089455042056W

FINAL COORDINATE LISTING
FOR 83800

NATIONAL GEODETIC SURVEY
GP TO UTM PROGRAM
1927 DATUM

VERSION 1.0

STATION NAME	LATITUDE (NORTH)	LONGITUDE (WEST)	NORTHING(Y) METER	EASTING(X) METER	ZONE	CONVERGENCE			SCALE FACTOR	ELEV (M)	GEOID HT(M)
						D	M	S			
I-89-01	43 22 53.11020	089 44 4.93570	4806589.292	278473.529	16	-1	52	44.59	1.00020369		
J-89-02	43 22 57.71317	089 43 38.90411	4806712.177	279061.709	16	-1	52	27.01	1.00020048		
OPB-89-03	43 22 56.76517	089 43 36.54027	4806681.190	279112.944	16	-1	52	25.35	1.00020020		
I-89-04	43 22 55.90942	089 43 37.21131	4806655.234	279097.969	16	-1	52	25.79	1.00020029		
J-89-05	43 22 56.90712	089 43 34.47714	4806680.966	279160.411	16	-1	52	23.94	1.00019995		
UPB-89-06	43 22 54.09466	089 43 56.49852	4806610.511	278682.135	16	-1	52	38.99	1.00020266		
I-89-07	43 22 53.75049	089 43 53.29492	4806605.144	278621.093	16	-1	52	40.21	1.00020288		
J-89-08	43 22 53.59190	089 43 59.92913	4806600.531	278584.428	16	-1	52	41.33	1.00020308		
UPB-89-09	43 22 53.04112	089 44 1.77084	4806585.637	278519.924	16	-1	52	43.25	1.00020243		
OPB-89-10	43 22 55.86465	089 44 0.95907	4806671.332	278565.824	16	-1	52	42.05	1.00020318		
I-89-11	43 22 54.50228	089 44 0.78015	4806629.245	278566.199	16	-1	52	41.95	1.00020318		
J-89-12	43 22 51.62209	089 43 59.76940	4806539.644	278586.030	16	-1	52	41.15	1.00020307		
OPB-89-13	43 22 50.74541	089 44 4.30058	4806515.342	278471.927	16	-1	52	44.58	1.00020369		
I-89-01	43 22 49.90941	089 44 1.25745	4806487.905	278550.811	16	-1	52	42.11	1.00020326		
I-89-02	43 22 53.55965	089 43 30.75097	4806578.038	279240.984	16	-1	52	21.26	1.00019951		
UPB-89-03	43 22 43.88972	089 43 44.00820	4806289.476	278932.393	16	-1	52	30.04	1.00020119		
I-89-01	43 21 51.75820	089 43 30.92467	4804671.563	279174.749	16	-1	52	19.25	1.00019987		
I-89-01	43 21 25.35089	089 43 15.18573	4803845.317	279562.435	16	-1	52	7.51	1.00019809		
UPB-89-02	43 21 25.11181	089 43 33.01405	4803851.048	279100.847	16	-1	52	19.76	1.00020027		
OPB-89-01	43 22 27.09937	089 45 48.46402	4805863.753	276115.090	16	-1	53	55.04	1.00021661		
I-89-02	43 22 25.20462	089 45 48.07900	4805805.912	276121.727	16	-1	53	54.71	1.00021637		
J-89-03	43 22 25.11947	089 45 51.25792	4805804.757	276050.096	16	-1	53	56.89	1.00021697		
OPB-89-01	43 22 22.17978	089 45 50.00865	4805743.984	275076.228	16	-1	53	55.96	1.00021682		
I-89-02	43 22 20.93665	089 45 48.16019	4805673.403	276115.536	16	-1	53	54.61	1.00021661		
I-89-01	43 22 19.82811	089 45 50.47962	4805640.935	276062.200	16	-1	53	56.17	1.00021690		
UPB-89-01	43 22 18.26689	089 45 50.42056	4805592.726	276061.333	16	-1	53	56.08	1.00021690		

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1991 BORING, MONITORING WELL, AND PIEZOMETER SURVEY DATA

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VIERBICHER
ASSOCIATES

March 12, 1992

Jeffery S. Pickett
Project Manager
ABB Environmental Services, Inc.
261 Commercial Street
P.O. Box 7050
Portland, ME 04112

Dear Mr. Pickett:

Enclosed please find final report for the surveying services Task Order Number 004. The base map we have prepared for the BAAP area will be transmitted under separate cover. Please call if you have any questions.

Very truly yours,
Vierbicher Associates, Inc.

John L. Brey
John L. Brey, RLS
Vice President

▼ ENGINEERING
▼ ARCHITECTURE
▼ SURVEYING
▼ COMMUNITY
DEVELOPMENT

▼ 400 VIKING DRIVE
P.O. BOX 379
REEDSBURG, WI 53959
(608) 524-6468
Fax (608) 524-8218

▼ 100 RAYOVAC DRIVE
SUITE 2
MADISON, WI 53711
(608) 274-3898
Fax (608) 274-5580

**REPORT FOR
PROFESSIONAL SURVEYNG SERVICES
HORIZONATL AND VERTICAL
LOCATION SURVEY**

BADGER ARMY AMMUNITION PLANT

Task Order Memorandum 004

Prepared for:

ABB Environmental Services, Inc.
261 Commercial Street
P.O. Box 7050
Portland, ME 04112

Prepared by:

Vierbicher Associates, Inc.
400 Viking Drive
P.O. Box 379
Reedsburg, WI 53959

March 6, 1992

FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 004
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
ABB ENVIORMENTAL SERVICES, INC.

The services required for this project includes the horizontal and vertical locations for various monitoring wells and soil borings at and adjacent to Badger Army Ammunition Plant. The horizontal positions have been determined relative to the Universal Transverse Mercator (UTM) system per the NAD 27. The vertical locations are based on Mean Sea Level (MSL) from the 1929 General Adjustment.

The horizontal and vertical control was taken from existing control monuments and traverse control currently existing within the Army Ammunition Plant. This control information has been provided by the Army Ammunition Plant.

HORIZONTAL FIELD SURVEY

The horizontal location has been taken from the existing control or has been extended from said control into the survey areas. The equipment that was utilized for the horizontal control was a Lietz SET-4 electronic total station in combination with a Lietz SDR-22 electronic data collector. The grid factor for distances was keyed into the collector at a value of 0.999891900 this provides for an automatic reduction to grid distances required for geographic computations. The output produced by the data collector is based on Wisconsin State Plane Coordinates. Multiple readings of horizontal angles and distances were taken to comply with required accuracies. A copy of the field notes generated by the data collector is attached as Appendix A. This data was keyed into and adjusted through a surveying computation software program.

VERTICAL FIELD SURVEY

The vertical location has also been taken from the existing control or has been extended from said control into the survey areas. The equipment that was used for the vertical survey was a Lietz B-1 automatic level. A copy of the field notes for the vertical survey is attached as Appendix B. The report for the elevations determined of the wells and borings is attached as Appendix C.


OFFICE COMPUTATIONS - REPORT GENERATION

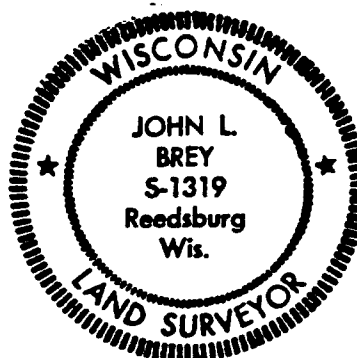
The state plane coordinates determined by the data collector report was input into batch files named BAAPBORE.PAC and BAAPWELL.PAC. The files were then run through a program provided by the Bureau of Land Management named BLMSPC27. This program converts State Plane Coordinates to geographic positions (latitudes and longitude). The output from these runs were placed in batch files named BAAPBORE.LAT and BAAPWELL.LAT. Finally these geographic position files were then run through a program provided by the Bureau of Land Management named BLMUTM27. This converts the geographic position to the Universal Transverse Mercator System coordinates. The output files were named BAAPBORE.UTM and BAAPWELL.UTM. The printout from this file list the UTM's for the wells and borings. A copy of the files generated are attached as Appendix D.

SURVEYOR'S CERTIFICATE

I, John L. Brey, Registered Land Surveyor, hereby certify that the above described location survey and the enclosed documentation are correct to the best of my knowledge and belief.

Dated this 6th day of March, 1992.


John L. Brey, RLS-1319
Vierbicher Associates, Inc.
400 Viking Drive, P.O. Box 379
Reedsburg, WI 53959



APPENDIX A

**HORIZONTAL SURVEY FIELD NOTES
FIELD DATA PRINTOUT FROM SDR-22**

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71

Blackground 1516

(12) 1516

1501-1501

(16) 1501

1516

(17)

1516 w/ 1516
1516 w/ 1516
1516 w/ 1516

(18) 1501

(19) 1501

1516
1516
1516

(20)

1516

Black 1516

(16) 1516

(17) 1516

1516

(18) 1516

Black 1516

(19) 1516

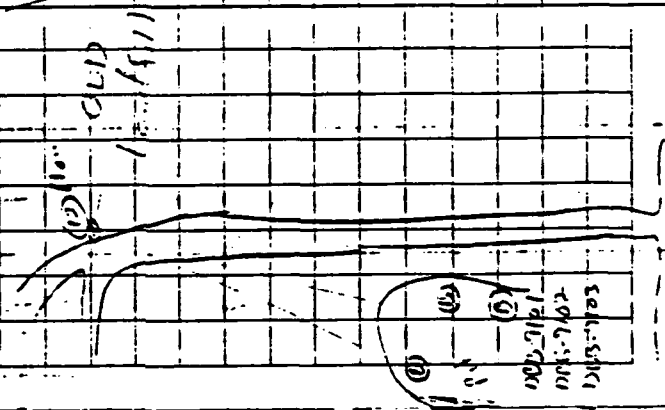
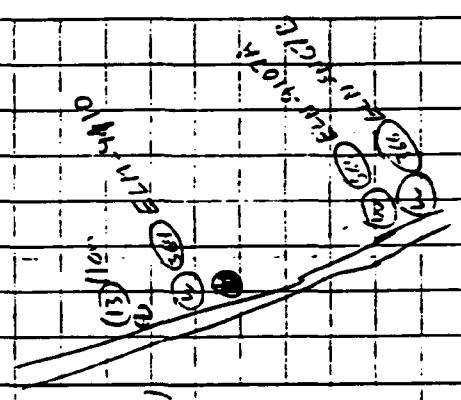
Black 1516

(20) 1516

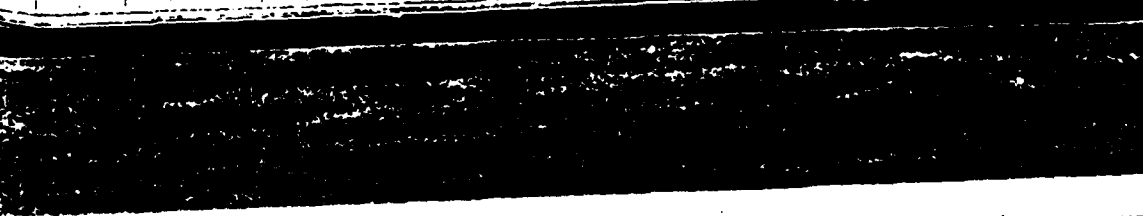
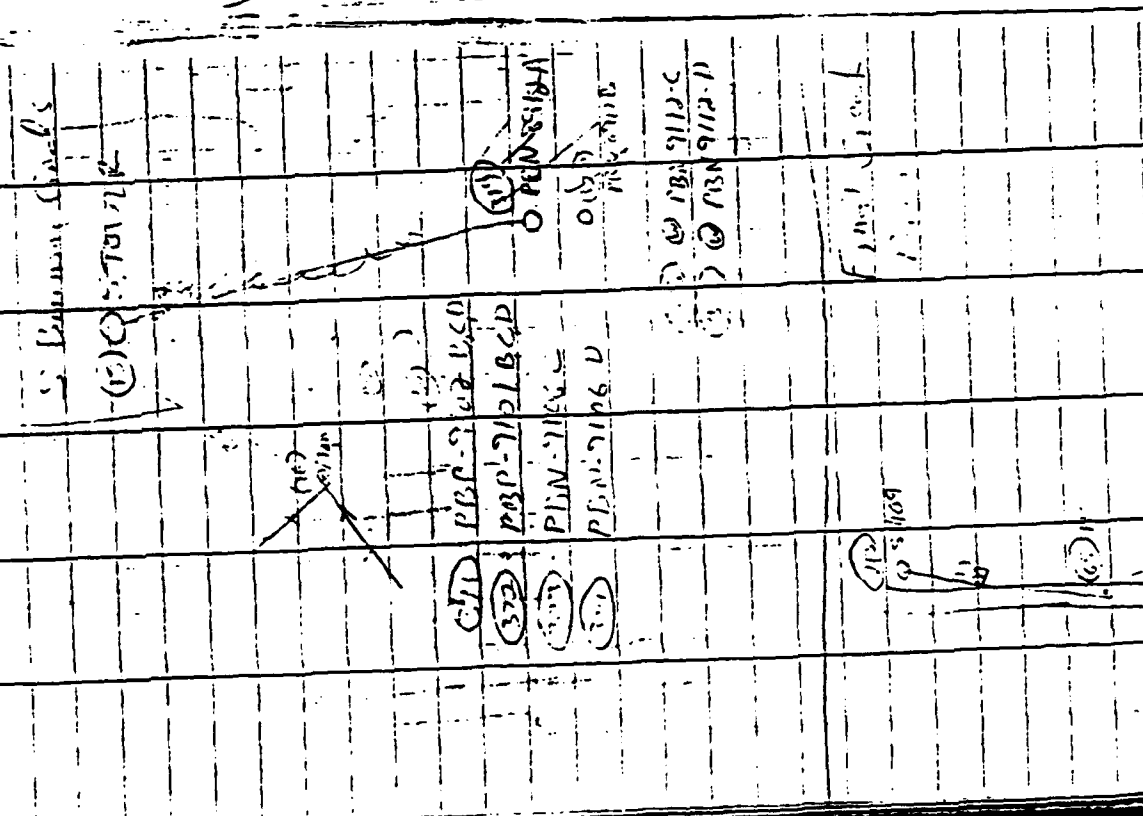
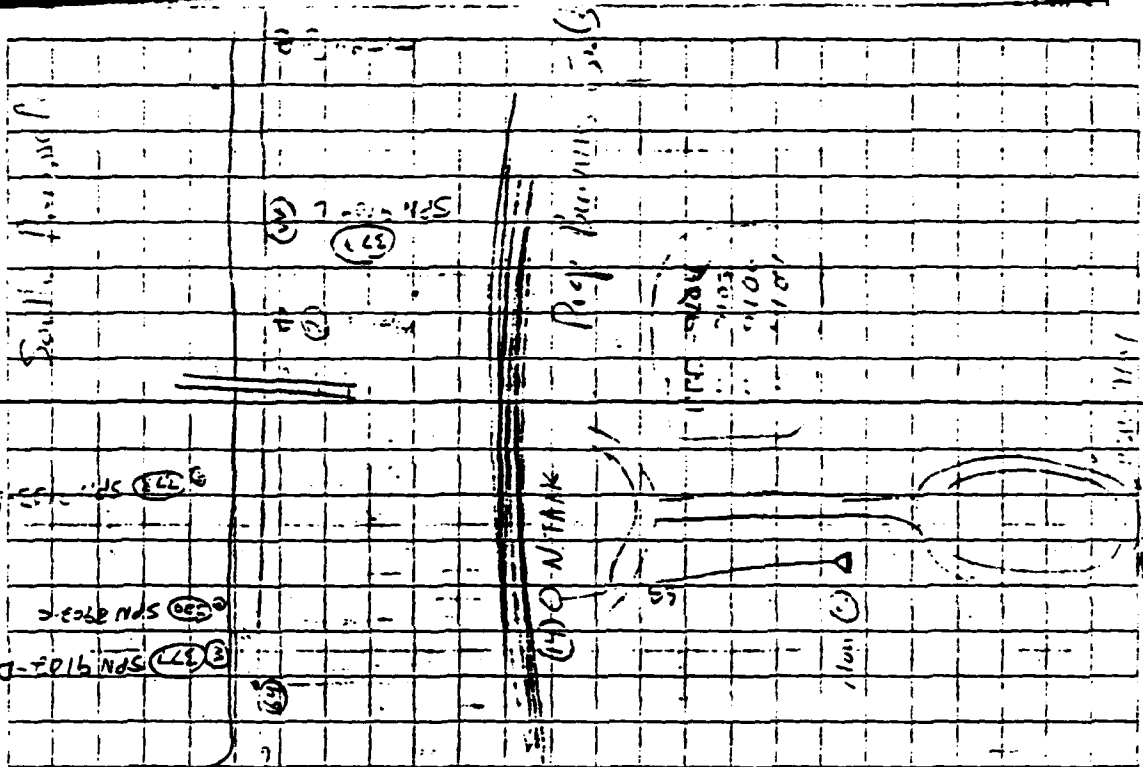
1516
1516
1516

R.A.P.
Horn 2011
21771912
Schwartz

East 2011
Red 2011



East 2011
Red 2011
Schwartz





SDR20 V03-05 Copyright 1985-91 by Datacom Software Research Limited.
Serial no 26-Feb-92 15:15
Angle : Degrees Dist : Feet Press : Inch Hg
Temp : Fahrenheit Coord : N-E-Elv H.obs : Right

JOB Job ID BAAP1

NOTE CP Sea level crn: N

NOTE CP C and R crn: Y

NOTE CP Atmos crn: Y

NOTE TS 26-Feb-92 08:40

SCALE S.F. 0.999891900

NOTE TS 26-Feb-92 08:40

NOTE BADGER

NOTE LOCATE MON. WELLS

NOTE KAV RHK

NOTE FB S-23

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Code BADGER

POS KI 0014 Nrth 500230.170 East 2063778.760 Elv <Null>
Code TOWER

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NOTE TS 26-Feb-92 10:32

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Theo <No text> Serial no 000000 Mount: not applc
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P.C. mm -30.000

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Theo ht <Null> Code BADGER

ATMOS Press 30.00 Temp 30.0

BKB TP 0001-0014 Azmth 358-43'22" H.obs 359-59'58"

OBS MC 0001-0014 Dist <Null> V ang 90-00'00" Azmth 358-43'22"
Code TOWER

STN TP 0001 Nrth 485879.670 East 2064098.740 Elv <Null>
Theo ht <Null> Code BADGER

BKB TP 0001-0014 Azmth 358-43'22" H.obs 359-59'58"

NOTE TS

25-Feb-92 11:20

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OBS MC 0001-0100	Dist 3065.331 Code NAIL	V ang 90-00'00"	Azmth 179-41'27"
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OBS MC 0100-0001	Dist 3065.329 Code BADGER	V ang 90-00'00"	Azmth 359-41'24"
OBS MC 0100-0001	Dist 3065.329 Code BADGER	V ang 90-00'00"	Azmth 359-41'32"
OBS MC 0100-0101	Dist 4385.498 Code NAIL	V ang 90-00'00"	Azmth 143-08'59"
OBS MC 0100-0101	Dist 4385.498 Code NAIL	V ang 90-00'00"	Azmth 143-08'39"
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NOTE TS

26-Feb-92 11:50

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OBS MC 0101-0100	Dist 4385.475 Code NAIL	V ang 90-00'00"	Azmth 323-08'42"
OBS MC 0101-0100	Dist 4385.480 Code NAIL	V ang 90-00'00"	Azmth 323-08'49"
OBS MC 0101-0102	Dist 1709.709 Code NAIL	V ang 90-00'00"	Azmth 90-45'07"
OBS MC 0101-0102	Dist 1709.719 Code NAIL	V ang 90-00'00"	Azmth 90-44'57"

OBS MC 0101-0102	Dist 1709.714	V ang 90-00'00"	Azmth 90-45'02"
------------------	---------------	-----------------	-----------------

OBS MC 0101-0383	Dist 42.377 Code SWN-91-02D	V ang 90-00'00"	Azmth 323-50'32"
OBS MC 0101-0384	Dist 77.390 Code SWN-91-02C	V ang 90-00'00"	Azmth 296-19'32"
OBS MC 0101-0385	Dist 1166.899 Code SWN-91-01D	V ang 90-00'00"	Azmth 271-42'07"
OBS MC 0101-0386	Dist 1210.899 Code SWN-91-01C	V ang 90-00'00"	Azmth 271-24'17"
OBS MC 0101-0387	Dist 1234.498 Code SWN-91-01B	V ang 90-00'00"	Azmth 271-14'07"
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EKB TP 0102-0101	Azmth 270-45'02"	H.obs 0-00'00"	
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OBS MC 0102-0101	Dist 1709.709 Code NAIL	V ang 90-00'00"	Azmth 270-45'07"
OBS MC 0102-0101	Dist 1709.719 Code NAIL	V ang 90-00'00"	Azmth 270-44'57"
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NOTE TS	26-Feb-92 12:22		
OBS MC 0102-0103	Dist 2704.066 Code NAIL	V ang 90-00'00"	Azmth 165-38'52"
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OBS MC 0102-0103	Dist 2704.066 Code NAIL	V ang 90-00'00"	Azmth 165-38'47"
OBS MC 0102-0388	Dist 1921.006 Code SWN-91-05B	V ang 90-00'00"	Azmth 99-54'42"
OBS MC 0102-0389	Dist 1942.447 Code SWN-91-05C	V ang 90-00'00"	Azmth 100-42'12"
OBS MC 0102-0390	Dist 1976.438 Code SWN-91-05D	V ang 90-00'00"	Azmth 101-40'22"
OBS MC 0102-0104	Dist 2074.126 Code BM USGS F109 34	V ang 90-00'00"	Azmth 99-49'02"
OBS MC 0102-0391	Dist 805.659 Code SWN-91-04C	V ang 90-00'00"	Azmth 84-47'57"
OBS MC 0102-0392	Dist 761.819	V ang 90-00'00"	Azmth 84-23'27"

OBS MC 0102-0393	Dist 305.219 Code SWN-91-03C	V ang 90-00'00"	Azmth 262-41'02"
OBS MC 0102-0394	Dist 292.409 Code SWN-91-03B	V ang 90-00'00"	Azmth 264-36'57"
OBS MC 0102-0395	Dist 229.008 Code SWN-91-03D	V ang 90-00'00"	Azmth 287-14'42"
OBS MC 0102-0396	Dist 179.314 Code SWN-91-03E	V ang 90-00'00"	Azmth 292-00'22"
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BKB TP 0103-0102	Azmth 345-38'47"	H.obs 359-59'55"	
OBS MC 0103-0102	Dist 2704.076 Code NAIL	V ang 90-00'00"	Azmth 345-38'52"
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OBS MC 0103-0397	Dist 1440.068 Code PBN-91-01C	V ang 90-00'00"	Azmth 71-22'52"
OBS MC 0103-0398	Dist 1447.600 Code PBM-90-01D	V ang 90-00'00"	Azmth 69-22'17"
OBS MC 0103-0399	Dist 819.270 Code PBN-91-02C	V ang 90-00'00"	Azmth 141-03'37"
OBS MC 0103-0400	Dist 849.054 Code PBN-91-02B	V ang 90-00'00"	Azmth 139-32'12"
OBS MC 0103-0401	Dist 862.572 Code PBM-90-02D	V ang 90-00'00"	Azmth 141-02'27"
OBS MC 0103-0402	Dist 1953.155 Code PBN-91-03C	V ang 90-00'00"	Azmth 176-07'07"
OBS MC 0103-0403	Dist 1959.229 Code PBN-91-03B	V ang 90-00'00"	Azmth 175-25'02"
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NOTE TS	26-Feb-92 13:24		
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NOTE TS	26-Feb-92 14:30		
NOTE TS	26-Feb-92 14:30		

BDR2X V03-017 Copyright 1985-91 by Datacom Software Research Limited.
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JOB JOB ID BAAP2

NOTE BAAP WELL AND BORING LOCATIONS

NOTE S-20

SCALE S.F. 0.999891900

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NOTE CP C and R crn : N

NOTE CP Atmos crn : Y

NOTE TS 27-Feb-92 08:53

NOTE TS 27-Feb-92 09:09

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 P.C. mm 0.000

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STN TP 0013 Nrth 501744.430 East 2076165.990 Elv <Null>
 Theo ht <Null> Code MON

ATMOS Press 29.00 Temp 40.0

NOTE TS 27-Feb-92 09:27

BKB TP 0013-0012 Azmth 270-55'01" H.obs 0-00'00"

OBS F1 0013-0012 Dist <Null> V.obs 90-05'05" H.obs 0-00'00"
 Code BS

OBS MC 0013-0364 Dist 134.820 V ang 90-55'55" Azmth 145-05'51"
 Code ELM-9110

OBS MC 0013-0365 Dist 1412.138 V ang 91-07'05" Azmth 146-28'41"
 Code ELN-9107-A

OBS MC 0013-0366 Dist 1461.248 V ang 91-08'55" Azmth 146-30'31"
 Code ELN-9107-B

NOTE TS 27-Feb-92 09:27

STN TP 0012	Nrth 492505.600 Theo ht (Null)	East 2076989.440 Code MON	Elv (Null)
BKB TP 0012-0013	Azmth 269-42'09"	H.obs 0-00'00"	
OBS F1 0012-0013	Dist (Null) Code BS	V.obs 89-54'00"	H.obs 0-00'05"
OBS MC 0012-1025	Dist 824.389 Code DBE-9102	V ang 30-34'55"	Azmth 191-42'15"
OBS MC 0012-1026	Dist 795.209 Code DBE-9103	V ang 30-38'00"	Azmth 196-32'45"
NOTE TS	27-Feb-92 10:09		
OBS MC 0012-1017	Dist 979.956 Code DBE-9101	V ang 30-33'05"	Azmth 190-41'45"
NOTE TS	27-Feb-92 10:04		
POS KI 0007	Nrth 492792.030 Code THOR	East 2074449.280	Elv (Null)
POS KI 0006	Nrth 492715.810 Code MERCURY	East 2073164.040	Elv (Null)
POS KI 0040	Nrth 492525.950 Code MSA PNT	East 2075305.390	Elv (Null)
POS KI 0041	Nrth 492531.440 Code MSA PNT	East 2077371.630	Elv (Null)
POS KI 0087	Nrth 492497.400 Code PK	East 2075409.640	Elv (Null)
POS KI 0086	Nrth 492505.600	East 2076989.440	Elv (Null)
STN SO 0007	Nrth 492792.030 Theo ht (Null)	East 2074449.280 Code MON	Elv (Null)
BKB SO 0007-0006	Azmth 266-36'22"	H.obs 359-59'55"	
OBS F1 0007-0006	Dist (Null) Code BS	V.obs 76-10'55"	H.obs 359-59'55"
NOTE TS	27-Feb-92 11:34		
STN SO 0087	Nrth 492497.400 Theo ht (Null)	East 2075409.640 Code MON	Elv (Null)
BKB SO 0087-0007	Azmth 287-03'20"	H.obs 0-00'00"	
OBS F1 0087-0007	Dist (Null) Code BS	V.obs 85-51'00"	H.obs 0-00'00"
NOTE TS	27-Feb-92 12:02		
STN TP 0086	Nrth 492505.600 Theo ht (Null)	East 2076989.440 Code PK	Elv (Null)
BKB TP 0086-0087	Azmth 269-42'09"	H.obs 0-00'00"	
OBS F1 0086-0087	Dist (Null) Code BS	V.obs 89-31'45"	H.obs 0-00'00"

NOTE TS	27-Feb-92 12:22		
OBS MC 0028-0027	Dist 2616.706 Code BGM-9103	Ung 89-57'40"	Azmth 322-51'14"
NOTE TS	27-Feb-92 13:01		
POS KI 0028	Nrth 494312.160 Code MSA PNT	East 2063102.280	Elv <Null>
POS KI 0008	Nrth 495394.540 Code BRA30 DISK	East 2063652.210	Elv <Null>
POS KI 0216	Nrth 494499.030 Code S-1123	East 2063074.570	Elv <Null>
NOTE TS	27-Feb-92 13:29		
STN SO 0028	Nrth 494312.160 Theo ht <Null>	East 2063102.280 Code BK	Elv <Null>
BK3 SO 0028-0008	Azmth 26-37'00"	H.obs 0-00'00"	
OBS F1 0028-0008	Dist <Null> Code BS	V.obs 89-54'35"	H.obs 0-00'00"
NOTE TS	27-Feb-92 14:06		
POS KI 0015	Nrth 497573.050 Code S.TOWER	East 2063737.350	Elv <Null>
STN TP 0028	Nrth 494312.160 Theo ht <Null>	East 2063102.280 Code SPIKE	Elv <Null>
BKB TP 0028-0015	Azmth 11-01'14"	H.obs 0-00'00"	
OBS F1 0028-0015	Dist <Null> Code BS	V.obs 87-43'40"	H.obs 0-00'00"
OBS MC 0028-0368	Dist 2616.706 Code BGM-9103	V ang 89-54'35"	Azmth 327-50'54"
POS SO 1028	Nrth 495394.721 Code 0008 Fill <Null>	East 2063652.210	Elv <Null>
NOTE	CHECK ON 8 POOR		
NOTE TS	27-Feb-92 14:22		
POS SO 1029	Nrth <Null> Code 0216 Fill <Null>	East <Null>	Elv <Null>
NOTE	ANGLE CHECK TO 216 RIGHT ON		
POS KI 0214	Nrth 503377.900 Code S-1127	East 2063312.330	Elv <Null>
POS KI 0017	Nrth 502329.560 Code MSA PNT	East 2063232.140	Elv <Null>
NOTE TS	27-Feb-92 14:37		
POS KI 0018	Nrth 503159.870 Code MSA PNT	East 2064665.040	Elv <Null>

	Theo ht (Null)	Code 9-1127	
BRE SO 0014-0010	Azmth 170-48'40"	H.obs 0-00'00"	
OBS F1 0014-0010	Dist (Null) Code BS	V.obs 38-48'00"	H.obs 0-00'00"
NOTE TS	27-Feb-92 15:10		
POS K1 0014	Nrth 500100.170 Code N.TOWER	East 2063776.760	Elv (Null)
STN SO 0017	Nrth 502329.560 Theo ht (Null)	East 2063262.140 Code MSA ROD	Elv (Null)
EKE SO 0017-0014	Azmth 165-24'21"	H.obs 0-00'00"	
OBS F1 0017-0014	Dist (Null) Code BS	V.obs 86-48'20"	H.obs 0-00'00"
OBS F1 0017-0014	Dist (Null) Code N.TOWER	V.obs 86-43'40"	H.obs 0-00'00"
OBS MD 0017-0099	Dist 994.260 Code Mult dist#1	V.obs (Null)	H.obs (Null)
OBS MD 0017-0099	Dist 994.260 Code Mult dist#2	V.obs (Null)	H.obs (Null)
OBS F1 0017-0099	Dist 994.260 Code PK	V.obs 90-12'55"	H.obs 117-31'55"
BS MD 0017-0099	Dist 994.260 Code Mult dist#1	V.obs (Null)	H.obs (Null)
OBS MD 0017-0099	Dist 994.260 Code Mult dist#2	V.obs (Null)	H.obs (Null)
OBS F2 0017-0099	Dist 994.260 Code PK	V.obs 269-46'55"	H.obs 297-31'50"
NOTE TS	27-Feb-92 15:25		
OBS F2 0017-0014	Dist (Null) Code N.TOWER	V.obs 273-14'35"	H.obs 180-00'00"
SET TV 0017	Count 002		
-OBS MC 0017-0014	Dist (Null) Code N.TOWER	V ang 86-44'32"	Azmth 165-24'21"
OBS MC 0017-0099	Dist 994.258 Code PK	V ang 90-13'00"	Azmth 282-56'14"
POS TV 0099	Nrth 502552.130 Code PK	East 2062263.230	Elv (Null)
BKB TV 0017-0014	Azmth 165-24'21"	H.obs 0-00'00"	
TN TP 0099	Nrth 502552.130 Theo ht (Null)	East 2062263.230 Code PK	Elv (Null)
BKB TP 0099-0017	Azmth 102-56'14"	H.obs 0-00'00"	

NOTE TS	27-Feb-92 15:40		
OBS MC 0099-0368	Dist 712.094 Code BGM-9101	V ang 90-28'00"	Azmth 340-10'29"
OBS MC 0099-0370	Dist 493.629 Code BGM-9102	V ang 90-17'05"	Azmth 211-26'49"
NOTE TS	27-Feb-92 16:05		
POS KI 0319	Nrth 486337.600 Code PBN 8912-A	East 2066514.440	Elv (Null)
POS KI 0320	Nrth 486310.600 Code PBN 8912-B	East 2066513.920	Elv (Null)
STN SO 0019	Nrth 486337.600 Theo ht (Null)	East 2066514.440	Elv (Null)
BKE SO 0019-0015	Azmth 346-06'59"	H.obs 0-00'05"	
OBS F1 0019-0015	Dist (Null) Code BS	V.obs 89-13'00"	H.obs 0-00'00"
POS KI 0096	Nrth 487682.455 Code MON	East 2065958.520	Elv (Null)
NOTE TS	27-Feb-92 16:26		
STN TP 0096	Nrth 487682.455 Theo ht (Null)	East 2065958.520	Elv (Null)
BKB TP 0096-0015	Azmth 347-20'34"	H.obs 0-00'00"	
OBS F1 0096-0015	Dist (Null) Code BS	V.obs 88-54'35"	H.obs 0-00'00"
OBS MC 0096-0371	Dist 527.669 Code PBP 9102-BCD	V ang 89-41'10"	Azmth 135-59'14"
OBS MC 0096-0372	Dist 742.639 Code PBP 9101-BCD	V ang 89-26'45"	Azmth 127-47'04"
OBS MC 0096-0373	Dist 840.179 Code PBN 9106-C	V ang 89-39'20"	Azmth 133-37'09"
OBS MC 0096-0374	Dist 821.059 Code PBN 9106-D	V ang 89-41'55"	Azmth 134-40'29"
OBS MC 0096-0375	Dist 1507.127 Code PBN 9112-C	V ang 89-53'25"	Azmth 158-03'54"
NOTE TS	27-Feb-92 16:41		
OBS MC 0096-0376	Dist 1530.027 Code PBN 9112-D	V ang 89-55'55"	Azmth 159-15'49"

* END OF REPORT *

SDR2x V03-017 Copyright 1985-91 by Datacom Software Research Limited.
Serial no 0000 28-FEB-92 13:19
Angle : Degrees Dist : Feet Press : Inches
Temp : Fahrenheit Coord : N-E-Elv H.obs : Right

JOB Job ID BAAP3

NOTE BAAP WELLS AND BORINGS

NOTE 3-23

SCALE S.F. 0.999891900

NOTE CP Sea level crn:N

NOTE CP C and R crn : N

NOTE CP Atmos crn : Y

NOTE TS 27-Feb-92 18:26

NOTE TS 28-Feb-92 08:09

INSTR	SET Theo <No text> V.obs : Zenith P.C. mm 0.000	EDM <No text> Serial no 000000 Edm o/s <Null>	Serial no 000000 Mount: not applic Refl o/s <Null>
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POS KI 0014	Nrth 500230.170 Code NTOWER	East 2063778.760	Elv <Null>
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POS KI 0015	Nrth 497573.050 Code S.TOWER	East 2063737.350	Elv <Null>
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POS KI 0213	Nrth 488535.600 Code S1109	East 2064509.900	Elv <Null>
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POS KI 0065	Nrth 487183.315 Code PK	East 2064483.360	Elv <Null>
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POS KI 0064	Nrth 484697.850 Code PK	East 2065054.350	Elv <Null>
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POS KI 0002	Nrth 484682.930 Code APOLLO	East 2066803.060	Elv <Null>
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POS KI 0003	Nrth 484686.320 Code TITAN	East 2068037.990	Elv <Null>
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POS KI 0329	Nrth 484743.700 Code SPN 8902-C	East 2065402.800	Elv <Null>
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POS KI 0052	Nrth 503924.120 Code PK	East 2074714.610	Elv <Null>
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POS KI 0053	Nrth 503765.640 Code PK	East 2073428.100	Elv <Null>
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CODE PK

POS KI 0033 Nrth 504129.560 East 2070885.180 Elv (Null)
Code PK

NOTE TS 28-Feb-92 08:52

POS KI 0004 Nrth 491898.100 East 2066509.050 Elv (Null)
Code MON

POS KI 0005 Nrth 491398.300 East 2066501.000 Elv (Null)
Code MON

STN TP 0065 Nrth 487183.315 East 2064483.360 Elv (Null)
Theo ht (Null) Code PK

ATMOS Press 29.00 Temp 40.0

NOTE TS 28-Feb-92 09:07

BKB TP 0065-0213 Azmth 1-07'27" H.obs 0-00'00"

OBS F1 0065-0213 Dist (Null) V.obs 89-56'00" H.obs 0-00'00"
Code BS

OBS MC 0065-1028 Dist 1308.338 V ang 90-57'45" Azmth 168-53'07"
Code SPB 9101

STN TP 0064 Nrth 484697.850 East 2065054.350 Elv (Null)
Theo ht (Null) Code PK

BKB TP 0064-0329 Azmth 82-30'14" H.obs 0-00'00"

OBS F1 0064-0329 Dist (Null) V.obs 90-36'40" H.obs 0-00'00"
Code BS

NOTE TS 28-Feb-92 09:22

OBS MC 0064-0377 Dist 134.930 V ang 91-21'30" Azmth 75-28'29"
Code SPN 9102-D

OBS MC 0064-0378 Dist 943.948 V ang 89-56'45" Azmth 77-10'29"
Code SPN 9103-D

NOTE TS 28-Feb-92 09:37

STN TP 0002 Nrth 484682.930 East 2066803.060 Elv (Null)
Theo ht (Null) Code APOLLO

BKB TP 0002-0003 Azmth 89-50'34" H.obs 0-00'00"

OBS F1 0002-0003 Dist (Null) V.obs 88-45'40" H.obs 0-00'00"
Code BS

OBS MC 0002-0379 Dist 332.889 V ang 90-11'15" Azmth 88-29'24"
Code SPN 9104-D

NOTE TS 28-Feb-92 10:00

STN TP 0005 Nrth 491398.300 East 2066501.000 Elv (Null)
Theo ht (Null) Code MON

BKB TP 0005-0014 Azmth 342-52'09" H.obs 0-00'00"

OBS F1 0005-0014 Dist (Null) V.obs 89-08'35" H.obs 0-00'00"

OBS MC 0005-1029	Dist 848.009 Code PBB9101	V ang 89-04'00"	Azmth 164-22'44"
OBS MC 0005-1030	Dist 1821.648 Code PBB9102	V ang 89-04'00"	Azmth 171-42'41"
OBS MC 0005-1031	Dist 1018.148 Code PBB9103	V ang 89-37'10"	Azmth 181-48'29"
OBS MC 0005-1032	Dist 389.879 Code PBB9104	V ang 88-13'05"	Azmth 56-16'54"
OBS MC 0005-1033	Dist 352.209 Code PBB9105	V ang 88-00'30"	Azmth 61-30'09"
NOTE TS	28-Feb-92 10:16		
OBS MC 0005-1034	Dist 749.069 Code PBB9106	V ang 88-27'10"	Azmth 43-43'14"
OBS MC 0005-1035	Dist 613.559 Code PBB9107	V ang 88-24'30"	Azmth 45-31'39"
POS KI 0321	Nrth 492013.500 Code LOM 8901	East 2067665.700	Elv <Null>
POS KI 0069	Nrth 492493.284 Code PK	East 2067871.200	Elv <Null>
STN SO 0321	Nrth 492013.500 Theo ht <Null>	East 2067665.700	Elv <Null>
BKB SO 0321-0015	Azmth 324-45'19"	H.obs 359-59'55"	
OBS F1 0321-0015	Dist <Null> Code BS	V.obs 89-19'00"	H.obs 359-59'55"
NOTE TS	28-Feb-92 10:38		
OBS MC 0321-0380	Dist 605.499 Code LOM 9101	V ang 89-55'15"	Azmth 5-00'44"
NOTE TS	28-Feb-92 10:54		
POS KI 0029	Nrth 493778.510 Code MSA PNT	East 2066523.780	Elv <Null>
STN SO 0029	Nrth 493778.510 Theo ht <Null>	East 2066523.780	Elv <Null>
BKB SO 0029-0015	Azmth 323-42'33"	H.obs 0-00'00"	
OBS F1 0029-0015	Dist <Null> Code BS	V.obs 88-29'50"	H.obs 0-00'00"
OBS MC 0029-0381	Dist 1458.748 Code LOM 9102	V ang 88-41'55"	Azmth 108-07'18"
NOTE TS	28-Feb-92 11:11		
POS KI 0062	Nrth 500775.890 Code SPIKE	East 2063179.950	Elv <Null>
POS KI 0060	Nrth 498849.490	East 2062180.400	Elv <Null>

STN SO 0062	Nrth 500775.890 Theo ht <Null>	East 2063179.950 Code SPIKE	Elv <Null>
BKS SO 0062-0013	Azmth 170-07'39"	H.obs 0-00'00"	
OBS F1 0062-0015	Dist <Null> Code BS	V.obs 87-45'25"	H.obs 0-00'00"
OBS MC 0062-1036	Dist 486.789 Code OAB 9103	V ang 89-43'05"	Azmth 263-11'29"
OBS MC 0062-1037	Dist 267.620 Code OAB 9102	V ang 90-03'30"	Azmth 262-05'04"
NOTE TS	28-Feb-92 11:27		
OBS MC 0062-1036	Dist 324.149 Code OAB 9101	V ang 87-47'55"	Azmth 296-57'59"
OBS MC 0062-0382	Dist 191.730 Code OAM 9101	V ang 89-27'50"	Azmth 144-58'24"
POS KI 0063	Nrth 500264.700 Code PK	East 2062812.900	Elv <Null>
NOTE TS	28-Feb-92 11:42		
POS KI 0363	Nrth 500310.100 Code OAM 8902	East 2062915.500	Elv <Null>
STN SO 0063	Nrth 500264.700 Theo ht <Null>	East 2062812.900 Code PK	Elv <Null>
BKB SO 0063-0014	Azmth 92-02'51"	H.obs 0-00'00"	
OBS F1 0063-0014	Dist <Null> Code BS	V.obs 82-15'30"	H.obs 0-00'00"
OBS MC 0063-1039	Dist 114.360 Code FTB 9102	V ang 92-23'30"	Azmth 198-26'26"
OBS MC 0063-1040	Dist 91.160 Code FTB 9101	V ang 91-24'45"	Azmth 228-41'06"
NOTE TS	28-Feb-92 11:59		
STN TP 0055	Nrth 504129.560 Theo ht <Null>	East 2070888.380 Code PK	Elv <Null>
BKB TP 0055-0054	Azmth 197-1' 01"	H.obs 0-00'00"	
OBS F1 0055-0054	Dist <Null> Code BS	V.obs 90-14'10"	H.obs 0-00'00"
OBS MC 0055-1041	Dist 264.310 Code OPB9110	V ang 90-08'10"	Azmth 191-50'21"
OBS MC 0055-1042	Dist 398.489 Code OPB9111	V ang 90-01'15"	Azmth 188-37'31"
OBS MC 0055-1043	Dist 486.679 Code OPB9108	V ang 89-58'30"	Azmth 179-14'56"
OBS MC 0055-1044	Dist 487.111 Code OPB9109	V ang 89-58'30"	Azmth 179-14'56"

OBS MC 0055-1045	Dist 514.869 Code OPB9108	V ang 87-48'05"	Azmth 158-14'48"
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NOTE TS 20-Feb-92 12:22

STN TP 0054	Nrth 503415.140 Theo ht (Null)	East 2070635.630 Code PK	Elv (Null)
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BKB TP 0054-0053	Azmth 17-19'01"	H.obs 0-00'00"
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OBS F1 0054-0055	Dist (Null) Code BS	V.obs 89-48'40"	H.obs 0-00'00"
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OBS MC 0054-1046	Dist 241.080 Code OPB9112	V ang 91-18'10"	Azmth 83-43'26"
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OBS MC 0054-1047	Dist 169.070 Code OPB9109	V ang 89-40'05"	Azmth 8-09'36"
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OBS MC 0054-1048	Dist 89.140 Code OPB9101	V ang 89-25'50"	Azmth 279-06'36"
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OBS MC 0054-1049	Dist 109.880 Code OPB9113	V ang 90-26'25"	Azmth 240-36'41"
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NOTE TS 28-Feb-92 12:45

STN TP 0053	Nrth 503765.640 Theo ht (Null)	East 2073428.100 Code PK	Elv (Null)
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BKB TP 0053-0052	Azmth 82-58'38"	H.obs 0-00'00"
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BS F1 0053-0052	Dist (Null) Code PK	V.obs 90-16'25"	H.obs 0-00'00"
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OBS MC 0053-1050	Dist 778.449 Code OPB9105	V ang 92-09'30"	Azmth 276-19'23"
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OBS MC 0053-1051	Dist 831.069 Code OPB9103	V ang 92-13'55"	Azmth 284-29'18"
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OBS MC 0053-1052	Dist 863.109 Code OPB9104	V ang 92-01'10"	Azmth 276-48'33"
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OBS MC 0053-1053	Dist 996.548 Code OPB9102	V ang 91-57'25"	Azmth 288-40'43"
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* END OF REPORT *

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APPENDIX B

VERTICAL SURVEY FIELD NOTES

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25

B A A P

OFF RST AREA to South

Vert Control

12/9/91

Schneider/Schmidt

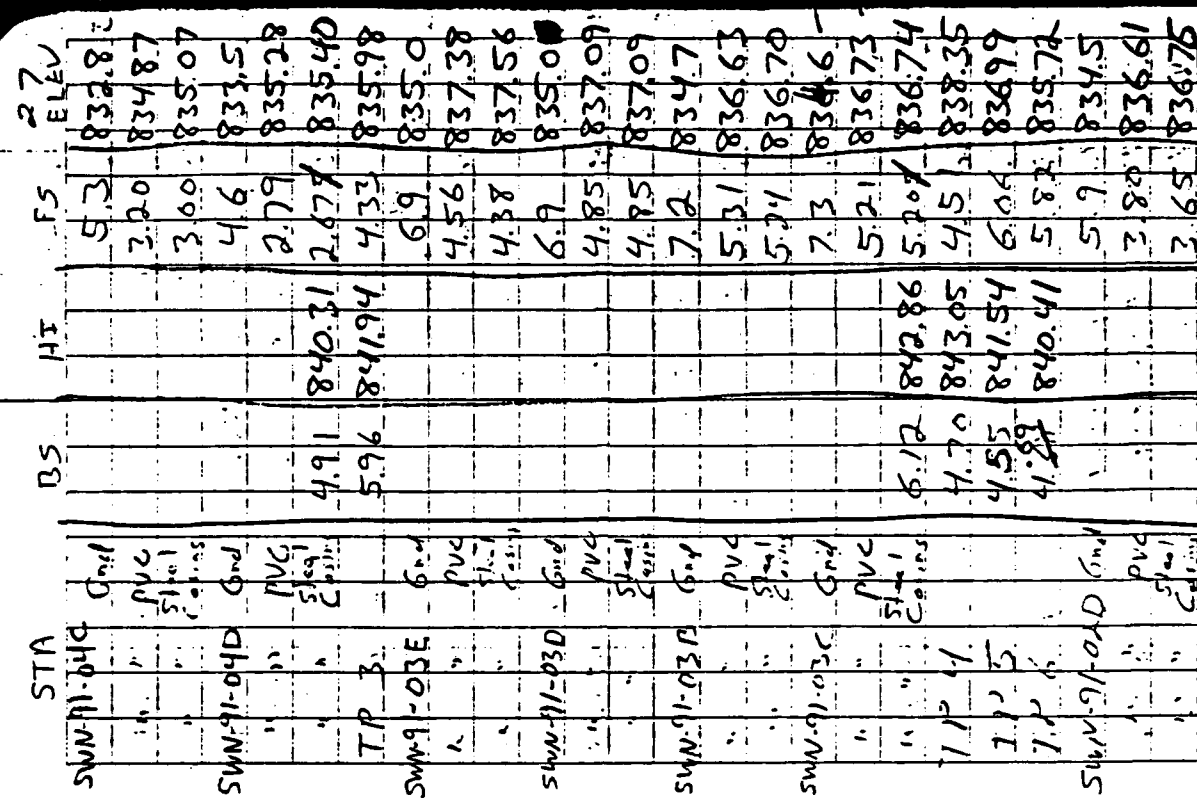
PC 10.0, 40.5

Ground shot @ Natural

Schneider near well

PVC well pipe shot on
highest point

Steel wall casing shot
on North Edge (off)



STA	BS	HT	FS	Elm	STA	BS	HT	FS	Elm
SWN-91-02-C Gnd			6.0	834.11	USGS F109			6.798	832.764
TP 14			4.02	836.39				114.726	
TP 15			3.81	836.60				114.77	
TP 16			6.15	834.26					
TP 17	4.83	839.09	5.23	833.86					
TP 18	5.57	839.13	7.9	831.5	SWN-91-040	BS	HT	FS	Elm
SWN-91-01-D Gnd			5.86	833.57	TP 16	3.54	838.94	5.70	833.24
TP 19			5.67	833.76					
TP 20			8.4	831.0					
SWN-91-01-C Gnd			5.40	834.03	TP 6	5.19	841.21		835.72
TP 21			5.31	834.12	SWN-91-020			4.45	836.76
TP 22			8.6	830.8	TP 11			4.69	836.52
SWN-91-01-B Gnd			6.18	833.25					
TP 23	5.75	839.20	5.98	833.45					
TP 24	5.69	839.51	5.38	833.82					
TP 25	6.09	841.09	4.51	835.00					
TP 26	5.73	842.25	4.57	836.52					
TP 27	5.66	843.75	4.175	838.075					
TP 28	4.69	842.63	5.795	837.94					
TP 29			5.87	836.74					
TP 30	4.70	841.55	5.78	836.85					
TP 31	4.27	839.69	6.131	835.42					
TP 32	4.92	838.16	6.45	833.24					
TP 33	5.94	839.36	4.74	833.42					
TP 34	5.15	839.55	4.95	834.405					

STA	BS	HI	FS	Elev
PBM-90-01D Gnd			7.2	828.8
" PVC			4.15	831.53
" Slope			4.66	831.32
" Casing			8.0	828.0
PBM-91-01C Gnd			5.94	830.04
" PVC			5.81	830.17
" Slope	3.41	833.58		
" Casing			5.60	827.98
TP 22	2.99	830.97		
TP 23	2.73	825.65		
PBM-90-02D Gnd			6.9	818.75
" PVC			4.31	821.34
" Slope			4.52	821.13
" Casing			6.6	819.0
PBM-91-02B Gnd			4.15	821.20
" PVC			4.29	821.36
" Slope			5.7	819.9
" Casing			3.73	821.72
PBM-91-02C Gnd			3.56	822.09
" PVC			7.05	818.60
" Slope	3.91	822.54		
" Casing	3.86	819.54		
TP 24			6.4	813.1
TP 25			4.68	814.86
PBM-90-03D Gnd			4.90	814.61
" PVC			6.8	812.7
" Slope			4.82	814.72
" Casing			4.65	811.89

TOLLOP #2

CTH 2

US63
F109

Well Group

PINE TREES

GRANITE FIELD RD

STA	BS	HI	FS	Elev
US65 F109				
TP 19	6.76	839.525		832.761
TP 20	5.60	840.50	4.625	834.90
TP 21	3.87	839.47	4.90	835.60
TP 22	3.58	835.98	7.07	832.40

Burning Ground
Sta 1 Boiling
12/16/91
PL 35

(Shot for Boiling)
Natural Gnd

Sta	BS	HI	FS	Elev
1	5. A			
2	POW-91-030 Gnd		7.2	812.3
3	" " " PVC		5.17	814.37
4	" " " Stake		5.04	814.59
5	TP 26 A	819.18	3.01	816.17
6	TP 27	823.25	4.78	818.47
7	Check	824.29	2.20	822.09
8	POW-91-030 Gnd		0.60	823.69
9	TP 28	832.32	6.96	825.36
10	TP 29	831.29	2.29	829.00
11	TP 30	834.90	4.25	830.61
12	Check	835.56	5.35	830.17
13	POW-91-030 Gnd		2.98	833.10
14	TP 31	836.08	4.32	835.35
15	TP 32	839.68	6.61	833.39
16	TP 33	840.03	7.25	832.76
17	TP 34	840.01		
18	USGS Flag		103.51	
19	TP 35			
20	TP 36			
21	TP 37			
22	TP 38			
23	Boiling P/B 91-01			
24	Boiling P/B 91-02			
25	Boiling P/B 91-03			
26	TP 39			
27	Boiling P/B 91-04			
28	Boiling P/B 91-05			
29	Boiling P/B 91-06			
30	Boiling P/B 91-07			
31	Boiling P/B 91-08			
32	Boiling P/B 91-09			
33	Boiling P/B 91-10			
34	Boiling P/B 91-11			
35	Boiling P/B 91-12			
36	Boiling P/B 91-13			
37	Boiling P/B 91-14			
38	Boiling P/B 91-15			
39	Boiling P/B 91-16			
40	Boiling P/B 91-17			
41	Boiling P/B 91-18			
42	Boiling P/B 91-19			
43	Boiling P/B 91-20			
44	Boiling P/B 91-21			
45	Boiling P/B 91-22			
46	Boiling P/B 91-23			
47	Boiling P/B 91-24			
48	Boiling P/B 91-25			
49	Boiling P/B 91-26			
50	Boiling P/B 91-27			
51	Boiling P/B 91-28			
52	Boiling P/B 91-29			
53	Boiling P/B 91-30			
54	Boiling P/B 91-31			
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56	Boiling P/B 91-33			
57	Boiling P/B 91-34			
58	Boiling P/B 91-35			
59	Boiling P/B 91-36			
60	Boiling P/B 91-37			
61	Boiling P/B 91-38			
62	Boiling P/B 91-39			
63	Boiling P/B 91-40			
64	Boiling P/B 91-41			
65	Boiling P/B 91-42			
66	Boiling P/B 91-43			
67	Boiling P/B 91-44			
68	Boiling P/B 91-45			
69	Boiling P/B 91-46			
70	Boiling P/B 91-47			
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73	Boiling P/B 91-50			
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85	Boiling P/B 91-62			
86	Boiling P/B 91-63			
87	Boiling P/B 91-64			
88	Boiling P/B 91-65			
89	Boiling P/B 91-66			
90	Boiling P/B 91-67			
91	Boiling P/B 91-68			
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160	Boiling P/B 91-137			
161	Boiling P/B 91-138			
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225	Boiling P/B 91-202			
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255	Boiling P/B 91-232			
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284	Boiling P/B 91-261			
285	Boiling P/B 91-262			
286	Boiling P/B 91-263			
287	Boiling P/B 91-264			
288	Boiling P/B 91-265			
289	Boiling P/B 91-266			
290	Boiling P/B 91-267			
291	Boiling P/B 91-268			
292	Boiling P/B 91-269			

ST A	BS	HI	FS	Elev
PBM 85-06	5.47	853.92	0.695	855.71
PBM 91-06 C			4.18	853.25/33
PBM 91-06 C			2.60	852.2
PBM 91-06 C			2.53	854.42
PBM 91-06 C			5.8	854.49
PBM 91-06 C			3.73	851.2
PBM 91-06 C			3.51	853.29
PBM 91-06 C				853.48

MON. WELLS N OF BURNING Gnd's

ST A	BS	HI	FS	ELEV*
LOM 91-01	6.54	924.75		918.21
TP 42	4.24	921.81	7.18	917.57
LOM 91-01			6.3	915.5
PVC			4.30	917.51
STEEL			4.09	917.72
TP 43	1.17	919.43	3.85	917.96
LOM 91-02			9.1	910.3
PVC			7.13	912.30
STEEL			7.02	912.41
TP 44	0.62	910.47	9.36	910.07
TP 45	0.17	900.74	10.42	900.27

* Elev Hrs Changed - See P. 39

South Perimeter
(Sethling Pond)
Monitor Well Elevations

STA	BS	HI	FS	Elev
SPN 8902A	2.14	825.90		823.76
SPN 8902B	2.21		4.3	823.66
SPN-91-02D			1.87	821.6
"			1.78	824.03
"				824.12
STA	BS	HI	FS	Elev
SPN 8903B	2.31	822.07		818.21
SPN-91-03D			5.41	816.7
"			2.71	817.36
"			2.59	819.48
S 1147			4.68	817.39
STA	BS	HI	FS	Elev
" Apollo Mon	2.41	806.52		804.11
SPN-91-04D			5.7	800.8
"			3.94	802.58
"			3.60	802.92

MOVED

El.-
890.89
884.61*

FS
9.85
7.66

HI
892.27

BS
1.38

STA
76
Elev Has changed - S-1133

Final Creek
Soil Borings

(Note S-1133 Has been changed.)

STA	BS	HI	FS	Elev
SPN-8901C	4.19	834.39		830.20
TP 47	9.31	842.70	1.00	833.39
" TP 18	10.3	835.52	8.21	834.49
SPB-91-01			10.6	824.9
TP 47	7.53	842.39	0.96	834.56
TP 150	1.24	834.97	8.66	833.73
SPN-8901C			4.77	830.20

39

STN	BS	HI	FS	EL
ELN-91-073 Gnd			7.4	893.9
" PVC			5.45	895.88
" Steel			5.31	895.99
TP 54	6.11	902.16	0.49	901.67
TP 55	9.80	914.98	7.10	905.18
TP 56	7.53	923.79	0.72	914.26
TP 57	7.26	929.21	1.84	921.95
Mon. 20.000			4.58	924.63
Mon. 15.000			48.71	
Σ				

STN	BS	HI	FS	EL
DBN-820 C	0.59	907.95		907.36
S1122			0.71	907.15
DBN-91-01 Boring			8.3	899.7
DBN-91-02 Boring			9.6	898.41
DBN-91-03 Boring			9.6	898.41

STN	BS	HI	FS	EL
110.11	14.16	871.86		857.70
TP 58	10.13	881.795	0.195	871.665
TP 59	18.00	898.865	0.175	880.865
TP 60	17.77	916.215	0.172	898.435
TP 61	6.68	922.11	0.825	915.31
10118901			3.80	918.21 *
110.11	0.07	881.68		881.61 *
TP 62	2.17	875.86	1.131	871.37
TP 63	1.22	865.655	1.125	864.455
110.11			7.955	857.70

[illegible]

OLEUM POND	STA	RS	HI	EL	41
Boring	OPB-91-08 Boring	5.32	938.18	933.2	EL
12/1/91	TP 68			933.18	
Sunny 40°	OPB-91-07 Boring			932.5	
	H-20 #397 Clean Pl			935.00	
	OPB-91-06 Boring			932.6	
	OPB-91-10 Boring			932.6	
	OPB-91-11 Boring			932.9	
	TP 69	695	938.60	931.65	
	OPB-91-09 Boring			932.2	
	OPB-89-01 Steel Coring			926.23	
	OPB-91-05 Boring				
	TP 66				
	TP 67				
	OPB-91-03 Boring				
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STA	BS	HI	FS	Elev
OAB-91-01 Boring	2.78	888.52	2.81	885.74
OAB-91-02 Boring	3.66	884.00	8.18	880.34
OAB-91-03 Boring			5.76	878.24

42.87

Σ

Backsround Wells

STA	BS	HI	FS	Elev
Gen. Well	5.46	879.74		874.48
TP 82	5.47	880.61	4.80	875.14
TP 81	4.87	880.78	4.62	875.98
TP 82	4.15	878.41	6.52	874.25
TP 82	5.21	877.11	6.51	871.90
TP 81	4.45	873.51	8.06	869.05
TP 82	4.86	873.05	5.32	868.19
TP 86	4.95	872.51	5.98	867.56
TP 87	4.87	871.91	5.17	867.04
TP 88	4.03	869.79	6.15	865.75
TP 89	4.06	867.76	6.83	863.70
BGM-91-03 G.W.			6.7	861.1
" "			4.20	863.56
" "			4.08	863.68

Elev

FS

HI

BS

STA

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STATION	BS	HI	IS	LI	TP	FS	LI
TP 81	6.15	870.945	3.815	864.795	TP 101	4.87	880.385
TP 82	5.35	872.075	5.185	865.765	TP 102	5.04	879.06
TP 83	5.47	872.725	4.795	867.305	TP 103		
TP 84	5.45	873.365	4.815	867.915	TP 104		
TP 85			5.175	868.19	TP 105		
TP 86	6.10	874.575	4.89	868.475	TP 106		
TP 87	5.62	877.335	2.86	871.715	TP 107		
TP 88	6.51	879.67	4.175	873.16	TP 108		
TP 89			5.41	874.26	TP 109		
TP 90	5.98	881.45	4.20	875.47	TP 110		
TP 91	3.94	879.23	6.16	875.29	TP 111		
TP 92			4.75	874.48	TP 112		
TP 93			10.75		TP 113		
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APPENDIX C

REPORT OF BORING AND WELL ELEVATIONS

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**DEEP SOIL BORINGS
TASK ORDER MEMORANDUM 004
BADGER ARMY AMMUNITION PLANT
BARABOO, WISCONSIN**

PROPELLANT BURNING GROUND	GROUND ELEVATION	OLD ACID PLANT	GROUND ELEVATION
PBB-91-01	875.2	OAB-91-01	873.6
PBB-91-02	874.0	OAB-91-02	876.6
PBB-91-03	868.9	OAB-91-03	874.6
PBB-91-04	872.7		
PBB-91-05	880.6	OLD FUEL TANK	GROUND ELEVATION
PBB-91-06	882.1		
PBB-91-07	878.4		
		FTB-91-01	874.2
DETERRENT BURNING GROUND	GROUND ELEVATION	FTB-91-02	872.4
DBB-91-01	899.7	FINAL CREEK	GROUND ELEVATION
DBB-91-02	898.4		
DBB-91-03	898.4	SPB-91-01	824.9
OLEUM PLANT AND POND	GROUND ELEVATION		
OPB-91-01	932.2		
OPB-91-02	873.8		
OPB-91-03	870.1		
OPB-91-04	873.2		
OPB-91-05	877.9		
OPB-91-06	932.6		
OPB-91-07	932.5		
OPB-91-08	933.2		
OPB-91-09	932.2		
OPB-91-10	932.6		
OPB-91-11	932.9		
OPB-91-12	925.5		
OPB-91-13	930.3		

**MONITORING WELLS
TASK ORDER MEMORANDUM 004
BADGER ARMY AMMUNITION PLANT
BARABOO, WISCONSIN**

PROPELLANT BURNING GROUND	GROUND	TOP PVC	TOP STEEL CASE
PBP-91-01B,C,D	848.3	850.53	850.60
PBP-91-02B,C,D	847.6	850.09	850.10
PBN-91-06C	846.1	848.29	848.43
PBN-91-06D	845.8	847.50	847.69
PBN-91-12C	852.2	854.42	854.49
PBN-91-12D	851.2	853.29	853.48

BACKGROUND WELLS	GROUND	TOP PVC	TOP STEEL CASE
BGM-91-01	873.8	876.01	876.15
BGM-91-02	874.4	876.61	876.73
BGM-91-03	861.1	863.56	863.68

LANDFILL NUMBER 1	GROUND	TOP PVC	TOP STEEL CASE
LOM-91-01	915.5	917.51	917.72
LOM-91-02	910.3	912.30	912.41

ROCKET PASTE AREA	GROUND	TOP PVC	TOP STEEL CASE
RPM-91-01	871.8	873.96	874.14

OLD ACID AREA	GROUND	TOP PVC	TOP STEEL CASE
OAM-91-01	875.1	877.04	877.17

**MONITORING WELLS
TASK ORDER MEMORANDUM 004
BADGER ARMY AMMUNITION PLANT
BARABOO, WISCONSIN**

OFF-POST (SOUTH)	GROUND	TOP PVC	TOP STEEL CASE
SWN-91-01B	830.8	833.25	833.45
SWN-91-01C	831.0	834.03	834.12
SWN-91-01D	831.5	833.57	833.76
SWN-91-02C	834.4	836.39	836.30
SWN-91-02D	834.5	836.61	836.76
SWN-91-03B	834.7	836.63	836.70
SWN-91-03C	834.6	836.73	836.74
SWN-91-03D	835.0	837.09	837.09
SWN-91-03E	835.0	837.38	837.56
SWN-91-04C	832.8	834.87	835.07
SWN-91-04D	833.5	835.28	835.40
SWN-91-05B	830.5	832.67	832.80
SWN-91-05C	830.8	832.86	832.94
SWN-91-05D	831.2	833.31	833.48
PBN-91-01C	828.0	830.04	830.17
PBN-91-02B	819.0	821.20	821.36
PBN-91-02C	819.9	821.92	822.08
PBN-91-03B	812.7	814.72	814.89
PBN-91-03C	812.3	814.37	814.50

EAST PERIMETER	GROUND	TOP PVC	TOP STEEL CASE
ELM-91-01	920.8	923.04	923.16
ELN-91-07A	895.3	897.65	897.73
ELN-91-07B	893.9	895.88	895.99

SETTLING PONDS	GROUND	TOP PVC	TOP STEEL CASE
SPN-91-02D	821.6	824.03	824.12
SPN-91-03D	816.7	819.36	819.48
SPN-91-04D	800.8	802.58	802.92

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APPENDIX D

**COMPUTER INPUT - OUTPUT FILES
UTM CONVERSION FILES**

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FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 004
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
ABB ENVIORMENTAL SERVICES, INC.

File name BAAPBORE.PAC

PT#	SPCNORTH	SPCEAST	BORING NAME
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1025	500961.270	2074498.980	DBB-91-02
1026	501069.935	2074286.302	DBB-91-03
1027	500805.557	2074484.413	DBB-91-01
1028	485899.663	2064735.354	SPB-91-01
1029	490581.385	2066729.411	PBB-91-01
1030	490382.505	2066648.942	PBB-91-02
1031	490380.681	2066468.877	PBB-91-03
1032	491614.627	2066825.144	PBB-91-04
1033	491661.611	2066986.009	PBB-91-05
1034	491938.716	2067019.311	PBB-91-06
1035	491827.973	2066938.659	PBB-91-07
1036	500760.527	2062693.406	OAB-91-03
1037	500739.035	2062914.880	OAB-91-02
1038	500922.773	2062891.258	OAB-91-01
1039	500156.307	2062776.757	FTB-91-02
1040	500204.535	2062744.451	FTB-91-01
1041	503870.874	2070834.153	OPB-91-10
1042	503735.578	2070828.617	OPB-91-11
1043	503642.923	2070894.759	OPB-91-08
1044	503661.706	2071025.803	OPB-91-07
1045	503690.512	2071156.591	OPB-91-06
1046	503441.488	2070905.203	OPB-91-12
1047	503582.495	2070689.627	OPB-91-09
1048	503429.253	2070577.619	OPB-91-01
1049	503361.220	2070569.893	OPB-91-13
1050	503851.315	2072654.936	OPB-91-05
1051	503973.403	2072624.071	OPB-91-03
1052	503867.911	2072571.612	OPB-91-04
1053	504084.610	2072484.591	OPB-91-02

FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 004
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
ABB ENVIRONMENTAL SERVICES, INC.

File name BAAPWELL.UTM

PT#	UTM X	UTM Y
364	280190.8089	4805930.5975
365	280393.1803	4805597.9546
366	280400.7882	4805585.0655
367	280273.9626	4803202.5298
368	275706.7004	4804534.1244
369	275875.1268	4806570.5201
370	275858.3083	4806238.1932
78-91-02 371	277011.8472	4801672.8951
372	277078.1326	4801647.4768
373	277083.2667	4801609.2761
374	277075.8658	4801610.2543
375	277056.1078	4801358.8392
376	277053.6778	4801350.6192
377	276636.2593	4800901.9472
378	276878.8333	4800946.8280
379	277230.2389	4800868.3892
380	277494.6528	4803276.6484
381	277560.6761	4803490.3386
382	276233.0362	4805763.3833
383	277044.9667	4799242.3841
384	277031.4510	4799242.9020
385	276697.2102	4799255.1066
386	276683.6988	4799254.0072
387	276676.4504	4799253.3129
388	278145.7420	4799084.6608
389	278150.3845	4799075.3122
390	278158.1554	4799063.0984
391	277818.0579	4799219.6000
392	277804.6152	4799220.5199
393	277482.8014	4799229.8185
394	277493.2336	4799229.9684

File name BAAPWELL.UTM

PT#	UTM X	UTM Y
395	277506.8990	4799229.2187
396	277522.8761	4799228.4304
397	278169.1700	4798525.8455
398	278166.6995	4798541.2581
399	277898.2367	4798200.9090
400	277909.1368	4798197.8496
401	277906.2314	4798190.4024
402	277767.2698	4797805.5211
403	277774.6355	4797803.9475
404	277774.6604	4797799.7432
405	278165.8816	4797341.6980
406	278145.3133	4797341.6185

FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 004
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
ABB ENVIORMENTAL SERVICES, INC.

File name BAAPWELL.PAC

PT# SPCNORTH SPCEAST BORING NAME

364	501633.875	2076243.121	ELM-91-10
365	500567.393	2076945.706	ELN-91-07-A
366	500526.042	2076972.164	ELN-91-07-B
367	492701.473	2076837.451	RPM-91-01
368	496527.572	2061709.772	BGM-91-03
369	503222.285	2062021.624	BGM-91-01
370	502131.008	2062005.703	BGM-91-02
371	487302.969	2066325.149	PBP-91-02-BCD
372	487227.467	2066545.416	PBP-91-01-BCD
373	487102.858	2066566.748	PBN-91-06-C
374	487105.192	2066542.374	PBN-91-06-D
375	486278.774	2066507.250	PBN-91-12-C
376	486251.544	2066500.254	PBN-91-12-D
377	484731.682	2065184.930	SPN-91-02-D
378	484907.386	2065974.748	SPN-91-03-D
379	484691.702	2067135.832	SPN-91-04-D
380	492616.683	2067718.600	LOM-91-01
381	493324.904	2067909.813	LOM-91-02
382	500618.892	2063289.990	OAM-91-01
383	479340.138	2066720.190	SWN-91-02D
384	479340.243	2066675.827	SWN-91-02C
385	479340.858	2065578.814	SWN-91-01D
386	479335.662	2065534.656	SWN-91-01C
387	479332.532	2065510.979	SWN-91-01B
388	478952.873	2070346.914	SWN-91-05B
389	478922.777	2070363.233	SWN-91-05C
390	478883.658	2070390.144	SWN-91-05D
391	479356.563	2069256.922	SWN-91-04C
392	479357.994	2069212.751	SWN-91-04D
393	479350.548	2068156.809	SWN-91-03C
394	479352.269	2068190.986	SWN-91-03B

File name BAAPWELL.PAC

PT# SPCNORTH SPCEAST BORING NAME

395	479351.422	2068235.867	SWN-91-03D
396	479350.721	2068288.330	SWN-91-03E
397	477123.935	2070489.558	PBN-91-01C
398	477174.164	2070479.644	PBM-90-01D
399	476026.926	2069639.775	PBN-91-02C
400	476018.182	2069675.864	PBN-91-02B
401	475993.429	2069667.218	PBM-90-02D
402	474715.484	2069257.076	PBN-91-03C
403	474711.194	2069281.405	PBN-91-03B
404	474697.416	2069281.982	PBM-90-03D
405	473242.118	2070618.302	PBN-90-04D
406	473239.434	2070550.892	PBN-90-04B

FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 004
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
ABB ENVIORMENTAL SERVICES, INC.

File name BAAPBORE.LAT

PT#	LATITUDE	LONGITUDE
1025	43° 22' 27.013803"	89° 43' 11.297380"
1026	43° 22' 28.094162"	89° 43' 14.172050"
1027	43° 22' 25.476271"	89° 43' 11.501695"
1028	43° 19' 58.548728"	89° 45' 24.089321"
1029	43° 20' 44.733203"	89° 44' 56.918050"
1030	43° 20' 42.771195"	89° 44' 58.015157"
1031	43° 20' 42.758516"	89° 45' 0.452103"
1032	43° 20' 54.935997"	89° 44' 55.580327"
1033	43° 20' 55.395279"	89° 44' 53.401254"
1034	43° 20' 58.131334"	89° 44' 52.939210"
1035	43° 20' 57.039898"	89° 44' 54.035297"
1036	43° 22' 25.391785"	89° 45' 51.149455"
1037	43° 22' 25.173307"	89° 45' 48.151603"
1038	43° 22' 26.988797"	89° 45' 48.464379"
1039	43° 22' 19.421416"	89° 45' 50.044075"
1040	43° 22' 19.898680"	89° 45' 50.479627"
1041	43° 22' 55.871311"	89° 44' 0.792244"
1042	43° 22' 54.535135"	89° 44' 0.873063"
1043	43° 22' 53.617871"	89° 43' 59.981419"
1044	43° 22' 53.799252"	89° 43' 58.206089"
1045	43° 22' 54.079633"	89° 43' 56.433787"
1046	43° 22' 51.627920"	89° 43' 59.848717"
1047	43° 22' 53.027479"	89° 44' 2.761796"
1048	43, 22' 51.517397"	89° 44' 4.285140"
1049	43° 22' 50.845661"	89° 44' 4.392692"
1050	43° 22' 55.619918"	89° 43' 36.136971"
1051	43° 22' 56.826809"	89° 43' 36.549513"
1052	43° 22' 55.786536"	89° 43' 37.264567"
1053	43° 22' 57.929735"	89° 43' 38.433367"

FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 004
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
ABB ENVIORNMENTAL SERVICES, INC.

File name BAAPWELL.LAT

PT#	LATITUDE	LONGITUDE
364	43° 22' 33.598720"	89° 42' 47.650894"
365	43° 22' 23.040846"	89° 42' 38.187925"
366	43° 22' 22.631505"	89° 42' 37.831641"
367	43° 21' 5.350812"	89° 42' 40.022595"
368	43° 21' 43.608993"	89° 46' 4.626993"
369	43° 22' 49.725864"	89° 46' 0.151890"
370	43° 22' 38.947484"	89° 46' 0.408808"
371	43° 20' 12.363249"	89° 45' 2.521740"
372	43° 20' 11.610977"	89° 44' 59.544281"
373	43° 20' 10.379542"	89° 44' 59.260689"
374	43° 20' 10.403318"	89° 44' 59.590406"
375	43° 20' 2.241564"	89° 45' 0.099201"
376	43° 20' 1.972812"	89° 45' 0.194967"
377	43° 19' 46.994197"	89° 45' 18.052735"
378	43° 19' 48.711624"	89° 45' 7.359549"
379	43° 19' 46.546841"	89° 44' 51.658971"
380	43° 21' 4.806834"	89° 44' 43.446852"
381	43° 21' 11.796363"	89° 44' 40.829501"
382	43° 22' 23.976078"	89° 45' 43.077398"
383	43° 18' 53.700016"	89° 44' 57.500211"
384	43° 18' 53.702370"	89° 44' 58.100285"
385	43° 18' 53.740731"	89° 45' 12.939070"
386	43° 18' 53.690697"	89° 45' 13.536584"
387	43° 18' 53.660471"	89° 45' 13.856977"
388	43° 18' 49.764243"	89° 44' 8.459756"
389	43° 18' 49.466463"	89° 44' 8.240311"
390	43° 18' 49.079228"	89° 44' 7.877984"
391	43° 18' 53.785491"	89° 44' 23.186283"
392	43° 18' 53.800986"	89° 44' 23.783705"
393	43° 18' 53.759719"	89° 44' 38.067276"
394	43° 18' 53.775681"	89° 44' 37.604907"

File name BAAPWELL.LAT

PT#	LATITUDE	LONGITUDE
395	43° 18' 53.765953"	89° 44' 36.997857"
396	43° 18' 53.757435"	89° 44' 36.288242"
397	43° 18' 31.694712"	89° 44' 6.608878"
398	43° 18' 32.191152"	89° 44' 6.740810"
399	43° 18' 20.885659"	89° 44' 18.148908"
400	43° 18' 20.798173"	89° 44' 17.661193"
401	43° 18' 20.553947"	89° 44' 17.779177"
402	43° 18' 7.943899"	89° 44' 23.380070"
403	43° 18' 7.900775"	89° 44' 23.051233"
404	43° 18' 7.764667"	89° 44' 23.044011"
405	43° 17' 53.348561"	89° 44' 5.034610"
406	43° 17' 53.324168"	89° 44' 5.946299"

**FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 004
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
ABB ENVIORMENTAL SERVICES, INC.**

File name BAAPBORE.UTM

PT#	UTM X	UTM Y
1025	279652.0224	4805744.7910
1026	279588.4143	4805780.2316
1027	279645.8766	4805697.5075
1028	276512.0765	4801262.7447
1029	277170.9505	4802667.3599
1030	277144.2528	4802607.6454
1031	277089.3691	4802609.0632
1032	277211.4441	4802981.1272
1033	277260.9727	4802993.6795
1034	277274.1567	4803077.7451
1035	277248.3692	4803044.8870
1036	276052.8161	4805813.0798
1037	276120.0614	4805804.1029
1038	276114.8788	4805860.3450
1039	276071.5869	4805628.0661
1040	276062.2724	4805643.1149
1041	278567.3118	4806671.4921
1042	278564.1413	4806630.3300
1043	278583.2777	4806601.3740
1044	278623.4109	4806605.6598
1045	278663.5761	4806613.0023
1046	278584.2508	4806539.8851
1047	278520.1142	4806585.2121
1048	278484.3064	4806539.7498
1049	278481.2063	4806519.1058
1050	279121.8632	4806645.5646
1051	279113.7980	4806683.1014
1052	279096.6576	4806651.5349
1053	279072.5201	4806718.5142

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**1990 OFF-POST MONITORING WELLS AND
HIGH CAPACITY WELLS SURVEY DATA**

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**FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 003
VERTICAL ELEVATION DETERMINATION OF WELLS
AND BENCHMARKS
ADJACENT TO
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
USATHAMA - E.C. JORDAN CO.**

The services required for this project includes the vertical locations for various high capacity irrigation wells and other types of wells located adjacent to Badger Army Ammunition Plant. In addition temporary benchmarks were established at specified points adjacent to the Wisconsin River. The vertical locations are based on Mean Sea Level (MSL) from the 1929 General Adjustment.

VERTICAL FIELD SURVEY

The vertical location has also been taken from the existing U.S.G.S. control point F-109. Having an elevation of 832.76. This was the control that was also utilized for the vertical control run into the ammunition plant on previous surveys. The equipment that was used for the vertical survey was a Pentax automatic level. A copy of the field notes for the vertical survey is attached as Appendix A.


OFFICE COMPUTATIONS - REPORT GENERATION

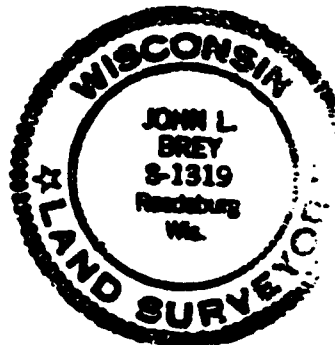
The field data obtained was reviewed for closure and adjustment. The loops run were found to fall within specified third order. It is noted that the elevation we had determined in looping through U.S.G.S. control point G-109 was different than the published elevation. However Wisconsin Department of Transportation vertical control work performed in this area concurred with our elevation.

SURVEYOR'S CERTIFICATE

I, John L. Brey, Registered Land Surveyor, hereby certify that the above described location survey and the enclosed documentation are correct to the best of my knowledge and belief.

Dated this 15th day of October, 1990.


John L. Brey
Vierbicher Associates, Inc.
400 Viking Drive
Reedsburg, WI 53959



FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 003
VERTICAL ELEVATION DETERMINATION OF WELLS
AND BENCHMARKS
ADJACENT TO
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
USATHAMA - E.C. JORDAN CO.

WELL 1A 828.05
 WELL 1B 823.91

 WELL 2A 825.25
 WELL 2B 832.18
 WELL 2C 823.03

WELL 3A 814.20
 WELL 3B 836.78
 WELL 3C 832.98

WELL 4 826.43

WELL 5A 758.61
 WELL 5B 828.03

WELL 6A 818.72
 WELL 6B 780.98

WELL 7A 748.60
 WELL 7B 746.26
 WELL 7C 746.16
 WELL 7D 746.02
 WELL 7E 748.51
 WELL 7F 748.47
 WELL 7G 748.34

WELL 8 850.85

WELL 9A 754.35
 WELL 9B 759.97

WELL 10 820.44

WELL 11 785.87

WELL 12 815.54

WELL 14 775.85

WELL 15 755.49

WELL 16A 835.00
 WELL 16B 837.27
 WELL 16C 836.27

WELL 17 866.31

WELL 18A 753.78
 WELL 18B 754.66
 WELL 18C 761.00

TBM 1 738.04
 TBM 2 780.71
 TBM 3 736.44
 TBM 4 762.91
 TBM 5 753.34
 TBM 6 730.81

BENCHMARK @ FARM ON "Z"
 835.88

FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 003
VERTICAL ELEVATION DETERMINATION OF WELLS
AND BENCHMARKS
ADJACENT TO
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
USATHAMA - E.C. JORDAN CO.

WELL NUMBER	GROUND SURFACE	TOP WELL RISER	TOP PROTECTIVE CASING
PBM-90-01D	829.0	831.53	831.31
PBM-90-02D	818.7	821.32	821.02
PBM-90-03D	812.9	814.79	814.56
PBN-90-04B	828.0	830.00	830.00
PBN-90-04D	828.0	829.95	829.71

ELEVATIONS AT DISCHARGE FOR INTERIM REMEDIAL MEASURES
10" EFFLUENT LINE

WATER ELEVATION 10/01/90	772.86
0.00 AT STAFF GAUGE	769.56
BENCHMARK NORTH RIM MANHOLE	795.25

A P P E N D I X A

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3

1

VERTICAL CONTROL

FOR E.C. JORDAN

BADGEA PLANT

WELL MONITORING

CLOUDY 55°

MAY, 15, 1990

Start Flow

5.435

	6 ²	1 ¹	F ²	E ²
TP#5	4.27	839.00	5.41	833.59
	4.10	837.86	5.24	833.76
TP#6	8.05	838.88	7.03	830.83
	5.93	838.88	4.91	832.95
NEIL 3B			3.0	835.88
WEIL 3C			6.80	832.08
TP#7	6.02	841.11	3.78	835.09
	5.76	841.11	3.54	835.34
TP#8	4.20	841.66	3.65	837.46
	4.10	841.66	3.55	837.56
TP#9	7.02	839.48	6.20	835.46
	3.79	839.48	5.98	835.74
TP#10	3.49	836.13	6.84	832.64
	3.23	836.16	6.55	832.93
		836.15		
TP#11	7.45	838.815	4.78	831.35
	6.47	838.825	3.79	832.355
		838.82		

DENVER Rd
DENVER Rd
NORTH DENVER Rd
SOUTH DENVER Rd

Bm F109		838.82	7.02	831.80
Sp 1109	4.66			(832.76)
TP#12	4.06	838.84	2.04	831.18
	3.93	838.85	1.90	834.92
		838.85		
TP#13	4.28	834.92	8.74	820.11
	4.66	834.92	8.53	830.32
TP#14	4.46	834.92		820.11
	3.62	833.06	5.51	829.175
TP#15	5.01	832.595	5.51	827.585
	4.76	832.595	5.26	827.835
TP#16	5.33	834.695	3.23	829.365
	5.05	834.695	2.95	829.645
TBM B			4.07	830.625
TP#17	1.09	829.225	6.56	828.135
	0.90	829.225	6.37	828.325

105

TBM-B
RR SPK IN PP S OF FIELD ENT.
FIELD RID WEST OF BUS "12".



TP #18	1.39	816.135	14.48	814.749
	1.21	816.145	14.28	814.935
		816.14		
TP #19	0.92	803.82	13.24	802.90
	0.50	803.88	12.82	803.32
TP #20	0.79	792.38	12.23	791.59
	0.46	792.38	11.90	791.92
WELL #11			6.59	785.79
TP #21	5.42	792.95	4.85	787.53
	5.17	792.95	4.60	787.78
	8.12	791.91	9.16	783.79
TP #22	7.19	791.91	8.23	784.72
			6.46	785.45
TP #23	0.77	788.56	4.12	787.79
	1.03	788.56	4.38	787.53

STAMPED
783.88

CHS. "D"
N.W. 88.
Hwy 60

LOCATED CURB + GUTTER WEST SIDE
OF WATER ST. RESIDENCE # 9177

PAINT SPOT ON FOUNDATION OF S. ENTRANCE
OF WELL HOUSE

MONUMENT BM # 784 (E109)
CURB JUST EAST OF BM # 784

TP#32	5.12	780.12	397	775.00
	5.48	780.12	4.33	774.64
TP#33	4.02	775.89	8.25	771.87
	4.35	775.89	8.58	771.54
TP#34	1.08	768.01	896	776.93
	1.45	768.01	9.33	776.56
TP#39	2.77	766.10	4.68	763.33
	5.55	766.10	7.46	760.55
TP#35	1.58	759.43	8.25	757.85
	2.03	759.43	8.70	757.40
TP#36	5.01	757.56	6.88	752.55
	5.09	757.56	6.96	752.47
TP#37	5.86	758.12	5.30	752.26
	6.21	758.12	5.65	751.91
Bm# 757 (SAUK)				757.19
+ of nut			0.93	756.63 757.96
H90 @ Bm# 757			2.82	755.24

B-109

 RD. WASH. ST. + DALLAS ST.
 CURB

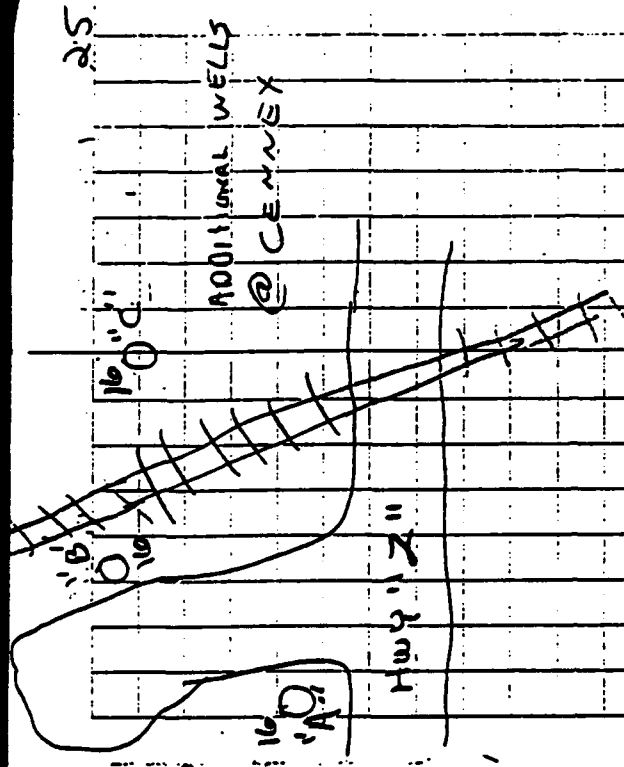
MORE ST. (EAST SIDE OF ST.)

STA.	BS	HI.	FS	ELEV.
B.M. DOT 47	6.85	837.37		830.52
TP #1	0.78	830.19	7.96	829.41
Inf. B 46			6.66	823.53 823.76
RE. (TP)			2.87	827.32 825.98
TP #2	2.96	824.80	8.35	821.84
B.M. A			9.36	815.42
B.M. A	9.21	824.63		815.42
TP #1	8.10	829.93	2.80	821.83
TP #2	9.77	837.02	1.68	828.25
B.M. #47			6.52	830.50

MAY 17, 1990
CRC/OK
RAIN 55°
EC JORDEN cont.
ENG # 888 J. WIMBY

21

27



	BS	HI	FS	ELEV.
well 16				
Flog	4.71	837.47		832.76
well (8" 16)			1.20	836.27
well (A" 6)			2.47	835.00
TP#1	6.75	838.82	5.40	832.07
well (8" 16)			1.55	837.27
well (8" 16)	1.51	838.78		837.27
TP#1	7.04	839.08	6.74	832.04
F 107			6.33	832.75

ADDITIONAL WELLS
@ CENDEX

HW 4' 2"

10M "A"	4.44	819.115	814.675	815.62	A 03	015.52	27
TP# 1A	6.22	819.685	813.415	814.36			
6109		820.163					
		3.33	816.355	817.30			
TP# 2	5.63	822.235	816.595	817.84			
		023.11					
TP# 3	5.51	823.535	818.025	818.17			
		024.48					
BM# 44		5.98	817.555	818.50			
		024.39					
BM# 44	5.89	823.445	817.555	818.50			
	3.65	824.455	817.605	818.75			
		022.40					
TP# 1A	2.67	819.025	814.355	817.30			
		019.99					
TP# 2	5.85	819.295	813.445	814.39			
		020.24					
TBM "A"			4.63	815.71			

MAY 18, 1990
 CAC/BK
 EC, JORDAN
 ABJAINING WELLS
 GNG # 888
 SUNNY, ARE 34
 60°

001
818.29

DATA	BS	HI	FS	ELEV.
TP#1	7.14			
B-109	6.93	759.03		752.10
B-WIRE	6.72		5.69	
FBM#5			5.69	753.34
rod w	6.19			
FBM#5	5.80	759.14		753.34
B-W	5.41		7.04	
B-109			7.04	752.10
	7.34			
B-109	5.84	759.94		752.10
	9.34			
	5.80	759.95	3.79	754.15
TP#1	6.19	759.95	4.18	753.76
well #15			4.46	755.49
well #15	4.60	760.09		755.49
	3.44	757.82	5.71	754.38
	3.83	757.82	6.10	753.99
			5.72	
B-109			5.72	752.10

29

DISK STAMPED B.109. 1934. SAW, OAK WALK

STATION	BS	HI	FS	ELEV.
TOP M	9.71			742.0
#7421	7.246	749.26		
BOTT. M	4.81			
DISK			5.55	743.71
FORM #C			5.52	743.79
TP# 1	10.46	754.07	5.65	743.41
	10.10	754.07	5.29	743.97
TP# 2	9.26	756.56	1.77	752.30
	3.86	756.56	1.37	752.70
TP# 3	4.63	754.46	6.73	749.83
	4.23	754.46	6.33	750.23
WELL #7A			5.86	748.60
TP# 4	3.22	751.06	6.62	747.84
	2.62	751.06	6.02	748.44
TP# 5	6.23	752.82	4.47	746.59
	5.82	752.82	4.06	747.00
WELL #7A				
#7C			6.50	746.26
#110			6.66	746.16
			10.80	746.00

31

DISK STAMPED 20 APR 1956 USGS
 200' WEST OF BRIDGE 20' NORTH OF FENCE
 5110, NORTH R/W, 4 SOUTH FENCE, 50' EAST OF F.E.
 Dot set SW Abut.
 PAINT MARK SOUTH EDGE CENTER OF
 BRIDGE @ R STREAM

SK4-1
 SK4-2
 SK4-3

STA.	BS.	well 98 HI	FS	ELEV.
top	7.28			
BM# 67	5.15	759.97		754.82
bot.	3.02			
well #98			0.00	759.97
top				759.97
BM# 67	0.20	760.17		
bot.			5.35	754.82
~~~~~				
BM# 62	9.73			757.75
	2.22	765.97		
	6.71			
			5.04	
BM# 61			3.50	762.47
			19.6	
~~~~~				
# 61	4.65			762.47
	3.09			
	1.53	765.56	9.31	
# 62			7.81	757.75
			6.31	

RR SPK in PP

RR SPK in PP.

RR SPK in 30" TREE

RR SPK in 30" TREE

RR SPK in PP

	Well #	SA	
post	6.57		
BM #62	5.26	763.01	757.75
	3.95	6.66	
11		5.16	757.85
		3.66	
top #	6.24		
	4.78	762.63	
	3.32		
well # SA		6.69	
		4.02	758.61
		1.35	
well # SA	6.61		
	3.93	762.54	758.61
	1.23		
	6.63	6.33	
1p #2	5.28	4.76	757.78
	4.13	3.19	
		6.92	
BM #62		5.41	757.75
		3.90	

WELL #	7-E, F, G
top w	11.73
BM # 742	10.32
Bottom w	8.91
#	
WELL 7E	4.13
	3.81
	1.49
	6.21
	3.86
	1.51
	6.34
	3.98
	1.62
Well # 7F	
Well # 7G	
WELL # 7H	4.66
	2.45
	0.24
#	
BM 742	10.35
	8.79
	7.23
	742.00

shots on	
PVC top	
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SK3-1

SK3-2

SK3-3

SK3-3

41

MAY 21, 1990

ER. JORDAN

ADJ. WELLS

CRC/BK

Sunny 66°

+BM # 6			
top wire	6.74		745.687
BM # 109	4.42	750.107	
0-WIRE	2.10		
TP # 1	8.06	751.337	6.83
	7.74	751.337	6.21
TP # 2	5.61	752.197	4.45
	5.51	752.197	4.35
TP # 3	11.36	761.367	2.49
	11.17	761.367	2.30
TP # 4	0.68	753.457	2.59
	0.55	753.457	2.46
TP # 5	4.81	747.397	10.87
	4.64	747.397	10.70
TP # 6	8.55	753.577	2.37
	8.37	753.577	2.19
TP # 7	4.28	749.237	9.22
	4.93	749.237	9.27

TBM # 6 (cont.)

		<u>749.237</u>		
TP # 8	3.20	746.677	5.76	743.477
	3.01	<u>746.677</u>	5.57	743.667
TP # 9	1.52	749.147	5.05	741.627
	7.02	<u>749.147</u>	4.55	742.127
TP # 10	1.48	746.637	3.99	745.157
	1.46	<u>746.637</u>	3.97	745.177
TP # 11	5.26	744.707	7.11	739.527
	4.97	<u>744.707</u>	6.82	739.817
TP # 12	5.09	744.267	5.61	739.177
	4.47	<u>744.267</u>	4.99	739.797
TBM # 6			13.46	730.807
			13.46	

week # 17

13.16			
TP# 109	10.71	843.47	832.76
	8.26		
TP# 1	13.80	856.64	0.63
	13.46	856.64	0.29
TP# 2	4.47	860.84	0.27
	4.41	860.84	0.21
TP# 3	4.72	862.79	2.77
	4.40	862.79	2.45
TP# 4	10.02	866.96	5.85
	9.80	866.96	5.63
week # 17			0.65
			866.31

	TPM #1		
	8.84		
well #1	7.35	793.14	785.79
	5.86		
TP#1	1.96	787.87	7.23 785.91
	1.60	787.87	6.87 786.27
TP#2	1.76	775.76	13.87 774.0
	137	775.76	13.48 774.39
TP#3	8.91	763.72	12.95 762.81
	0.90	763.72	12.74 763.62
TP#4	0.68	751.32	13.28 750.64
	1.18	751.32	13.58 750.14
TP#5	3.37	745.61	9.08 742.24
	3.86	745.61	9.57 741.75
Point 'X'			7.57 738.04

Above H₂O

WELL #6A

TPM "B"	1.84			830.625
	1.86	832.485		
TP#1	3.25	826.405	9.33	823.155
	3.27	826.405	9.35	823.135
well #6A			7.69	818.715
			7.69	
			BM set FARM HWY "Z"	

TP #8 (P.4)	4.77	841.65		837.56	♀
BM set	3.41		5.77	835.88	
BM set	6.18	841.49		835.88	
TP #8 (P.4)	5.04		3.93	837.56	♀

Paint spot ♀

Blue paint spot on N.W. corner
concrete well 20' (+/-) north of
stall talk building.

DOT DISK	2.81	788.09	785.28	HWY "60" BRIDGE S.W. COR.
+BM #2			7.38 780.71	
+PM #2	7.24	787.95	780.71	
DOT DISK			-2.67 785.28	HWY "60" BRIDGE S.W. COR.
		Well #12		
	14.34			
DOT DISK	12.89	821.69	808.80	chis "D" on E. CCEP S. of Br.
TP #1	3.98	819.42	6.25 815.44	patch
	3.77	819.42	6.24 815.65	
well #12			0.88 815.54	
		Well #12		
	7.54			
DOT DISK	5.93	834.71	828.78	chis "D" CCEP US HWY "13"
	4.32			
	5.61		6.44	
TP #1	4.04	834.07	4.68 830.03	
	2.47		2.92	

7027

MAY 22 1990
 EC! Jordan
 ADJ. WELLS
 #888
 CRC/BK
 Sunny 65°

TP# 2	5.98	834.07	5.15	830.61
	4.60	825.21	3.46	
	3.22		1.77	
# well 28			0.27	
			3.46	
			1.77	
well# 28	5.24			
	2.64			
	0.04			
TP# 3	5.52		6.30	
	3.83		4.45	
	2.15		2.61	
TP# 4	6.32		5.53	
	4.76		4.06	
	3.20		2.59	
Bm # 50			7.58	
			6.17	
			4.77	

7/10

Well # SB

Dot	6.51	828.98	
Bm #50	5.12	833.90	
	3.73		
	8.08	5.94	
TP #1	6.74	836.27	829.53
	5.40		2.80
			11.44
Well #56			8.05
			4.66
			828.22
			828.22
			891
			7.58
TP #2	4.82	834.08	829.26
	3.90		5.25
			6.72
			5.16
Dot Bm #50			828.92
			3.62
			113.73

10/0

(14)

ch. 15 "12" deep HWY "12"

59

WELL #18A		
5.60	759.63	755.49
4.14		
2.68		
3.07	758.47	755.40
5.23	758.47	753.24
5.91		53.78
4.69		
3.46		

BEHIND WIS. DAIRIES
TOP NOT HYD. FRANKLIN ST & PAULINA ST.
CURB

well #18A

TP#1

well #15

modison and VAN BUREN st.

H4D, DALLAS + Washington St's.

well 18 B

0.63
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757.357

157.857

0.38

3.3.3

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12/11/23

3.40

754.657

757.927

3.27

well # 18B

BANK

0.69

757 357

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Well 180

152

763.3.3

65.50

3m H₂O

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Bm 114 D

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WELL # 10

TPM# A	6.97	820.93	815.53
	5.41		
	3.85		
	7.46		5.77
TP# 1	5.93	822.51	4.35
	4.39		2.93
	6.15		7.21
TP# 2	4.57	821.45	5.63
	2.99		4.05
	6.31		3.09
TP# 3	4.22	823.71	1.96
	2.13		0.83
	6.92		6.90
TP# 4	6.01	824.00	5.72
	5.10		4.54
	5.78		4.46
TP# 5	3.63	824.07	3.56
well # 10	1.48		2.66
	10.46		5.15
TP# 6	8.89	829.17	3.79
	7.32		2.43
	8.55		6.49
TP# 7	6.99	831.20	4.96
	5.43		2.03
			824.21

TP#8	5.24	831.20	10.07	823.23	
Well #2C	3.43	826.66	7.97		
	1.62		5.07		
TP#9	5.02	819.24	12.04	816.53	
	2.71		10.13		
	0.40		8.22		
TP#10	7.11	815.77	11.31	810.07	
	5.70		9.17		
	4.29		7.03		
TP#11	10.49	823.19	3.69	813.73	
	9.46		2.04		
	0.43		8.39		
TP#12	7.36	829.52	0.11 @ 823.08 + .83		TO SLAB
Well #1B	5.61		823.91		
	3.86				
TP#13	4.49	833.03	6.16	825.19	
	7.84		4.33		
	6.19		2.50		
TP#14	8.37	835.64	6.03	828.85	
	6.79		4.18		
	5.21		2.33		
TP#15	6.27	832.45	9.60	827.35	
	5.10		8.29		
	3.95		6.92		

TP#16 well #1A	7.00 4.82 2.64	834.5 832.87	6.31 4.40 2.49	828.05
TP#17	7.34 5.64 3.94	833.57	6.97 4.94 2.91	827.93
TP#18	7.45 5.80 4.15	834.63	6.91 4.76 2.61	828.81
TP#19	4.81 2.50 0.31	832.80	6.12 4.27 2.62	830.24
TP#20	6.23 5.29 4.55	829.90	9.77 8.19 6.61	824.61
well #10			10.59 9.34 8.09	820.56 820.43

(.07)

1.75

64

MAY 20 1990
EQ. 7060A-
COK/BK

21" F 6

bot LAGOON BM # 42	1.50	852.74	844.86
	6.08		
	6.61		
TP # 1	6.61	858.18	852.17
		0.77	
wall # 8			
		10.50	
		7.93	850.85
		5.25	
	10.41	858.58	850.85
	7.73		
TP # 2	5.05		
	0.66	852.47	851.21
		6.77	
BM # 110			
		7.58	844.89

MAY 30, 1990
EC. JORDAN
CRE/BK

6.06	5.99	834.77	828.73
6.06	4.74	834.71	6.17
3.42	3.42		4.80
			3.53
7.17		835.70	6.61
6.14			5.15
4.81			3.69
9.03		837.70	9.23
7.97			5.97
6.71			4.71
			6.87
			5.52
			4.17
			832.18
6.81		837.61	832.18
5.13			
4.05			
7.73		836.01	7.32
6.40			8.00
5.07			6.68
7.61		835.49	8.06
6.24			6.76
4.27			5.46
6.26		834.90	7.03
5.12			5.71
3.01			4.59
			829.78

834.10

9.32

6.06

4.71

828.21

Well 58

6.49

4.96

5.48

833.74

828.21

8.76

7.53

6.30

836.79

5.90

4.48

3.06

827.26

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PT#50

PT#1

PT#2

Well 58

Well 58

PT#3

PT#4

Dot
on #50

833.01

6.35

4.99

3.63

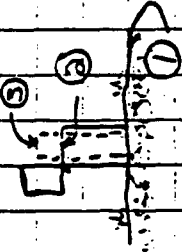
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75
SEPT. 28 1990
EC. JOHNSON
ADJOINING WELLS
CRC/BK
CLOUDY 65°

WELL	CODE	MAP	NO.
#1	NEAR RD @ R/W	(19)	
#2	BACK OF GRAVEL RD. END OF PINE ROW	(20)	
#3	BACK ON GRAVEL RD. BETWEEN shed & lawn GRUB	(21)	
#4	EAST > NEAR WATER TOWER	(22)	
#5	WEST	(23)	

#1 NEAR RD @ R/W
#2 BACK OF GRAVEL RD. END OF PINE ROW
#3 BACK ON GRAVEL RD. BETWEEN shed & lawn GRUB
#4 EAST > NEAR WATER TOWER
#5 WEST

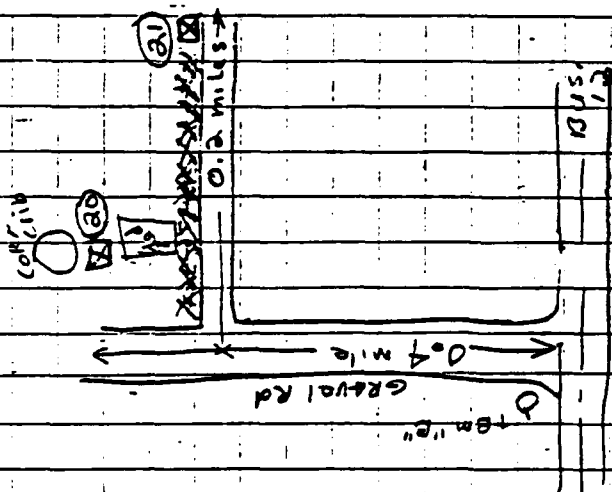


(1) GROUND
(2) TOP PROTECTIVE
MANHOLE
(3) TOP OF PVC
PIPE.

1.811' 830.62 RE. spike in VP.
818.72 well #60A

SIA.	BS	HT	FS	ELEV.
F109	953	839.60		832.76
	6.81		6.12	
	4.15		4.23	835.37
	5.36		2.34	
	3.26	838.63		
	1.16			
	7.92		9.84	
	5.46	836.06	8.03	830.60
	3.08		6.22	
well #19		①	7.07	828.19
		②	4.75	831.31
		③	4.53	831.53
	6.49		8.07	
	4.44	834.17	6.33	
	2.40		4.58	
	9.03		11.01	
	7.39	832.35	9.21	824.96
	5.75		7.41	
		①	13.61	818.74
		②	11.33	821.02
		③	11.03	821.32
well #20				
			13.92	
	9.05	823.04	14.14	818.21
	5.63		12.36	
	3.51			
well #5				

Location of wells 20, 21

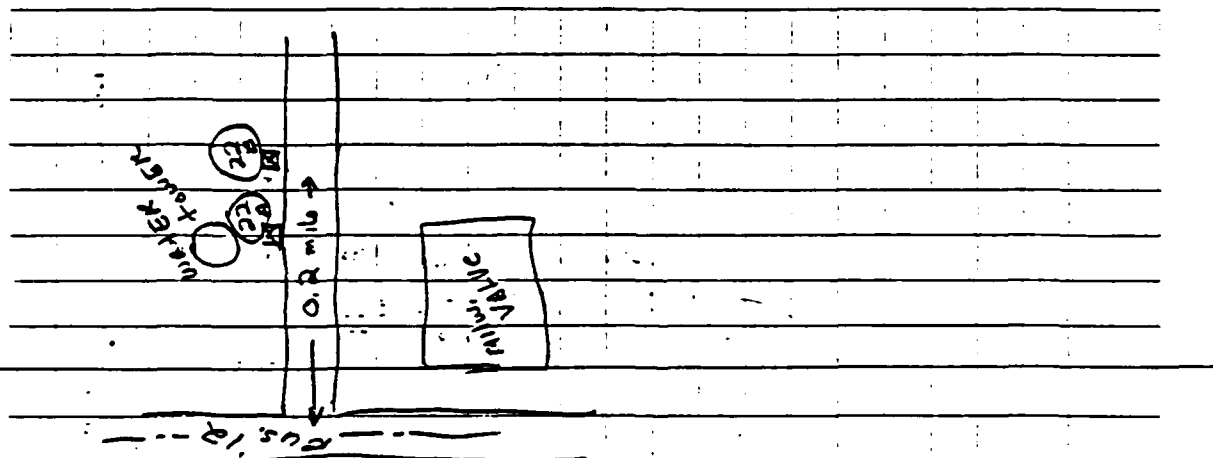


PBM 90-030

PBM 90-048

TP#6	7.36 1.91 2.46	823.84 824.25	6.18 4.50 2.82	819.34	→
TP#7	4.36 3.68 3.00	820.41	8.89 7.52 6.15	816.73	
Well 21		① ② ③	7.52 5.85 5.62	812.89 814.56 814.79	
TP#8	8.61 7.11 5.61	826.11	2.21 1.41 0.61	819.00	
TP#9	7.17 5.85 4.53	829.36	3.97 2.60 1.53	823.51	
TP#10	9.50 8.41 7.02	835.76	3.19 2.01 0.83	827.35	
TP#11	5.06 3.87 2.69	833.63	7.29 6.00 4.72	829.76	
Well 20		① ② ③	5.60 3.63 3.63	828.03 830.00 830.00	→

ABW-90-040



STA.	HS	HS	FS	ELEV.
WELL 22A				
		①	5.67	827.94
		②	3.92	829.71
		③	3.68	829.95
TP# 12	5.86 4.48 3.10	830.42	9.10 7.69 6.28	825.94
TP# 13	8.10 6.76 5.42	833.82	4.52 3.30 2.21	827.06
TP# 14	7.97 6.64 5.32	836.01	6.31 4.45 2.60	829.37
SINK W/PT TAP # B # 15	6.26 5.16 4.06	836.00	5.85 5.17 4.50	830.84
TP# 16	5.99 4.73 3.48	833.63	8.53 7.10 5.68	828.70
TP# 17	7.11 5.79 4.47	833.72	7.47 5.70 3.93	827.93
TP# 18	8.47 6.96 5.45	836.04	6.45 4.64 2.84	829.08
TP# 19	6.71 5.54 4.32	836.20	7.03 5.38 3.74	830.66
TP# 20	4.64 3.95 2.26	839.64	5.85 4.51 3.18	831.69
TP# 21	6.43 5.20 3.97	840.55	5.66 4.34 2.92	835.35

83

Oct. 1, 1990
 EC. JORDON
 ADDING WELLS
 CRC/ H.S.
 Sunny. 65°
 900 AM
 Bench loop to
 WATER GAUGE

840.55

4.84
 3.77
 2.70

834.83

7.03
 5.72
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1P122

BM #109
 832.76

832.75

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STA.	B.S.	HT	F.S.	ELEV.	GATE # 9 CENTER ground hatch (concrete finished 08-1-50)
	15.88 15.25 14.62	115.25		100.00	
TP#1	1.04 1.45 1.06	101.27	16.69 15.43 14.18	99.82	
TP#2	1.45 1.15 0.85	86.00	17.05 16.42 15.79	84.85	
TP#3	1.57 "	73.54	14.59 14.05 13.53	71.95	
TP#4	13.09 12.07 11.05	84.13	8.19 1.98 0.79	72.06	
TP#5	16.24 15.93 14.65	98.53	1.08 1.03 0.19	83.10	
TP#6	15.95 14.78 13.62	112.64	0.91 0.67 0.30	97.86	
TP#7	15.04 13.42 11.75	124.48	2.83 1.58 0.33	111.06	
TP#8	12.04 11.05 10.02	126.36	11.17 9.15 7.13	115.33	
TP#9	8.74 7.11 5.48	131.66	3.48 6.84	124.55	
TP#10	15.11 13.24 11.37	143.17	3.09 1.73 0.36	129.93	

TP# 11	10.53 8.78 7.23	150.83	2.95 1.72 9.49	141.45
TP# 12	2.24 18.7 1.42	136.20	17.03 15.86 14.69	134.37
TP# 13	0.25 0.53 0.42	120.60	16.36 16.13 15.90	120.07
TP# 14	1.47 6.20 6.92	105.81	16.29 15.99 15.68	104.61
TP# 15	0.33 0.18 0.06	91.05	15.25 14.94 14.63	90.87
NORTH MH ₂ marker			10.71 10.67 10.44	80.38
TP# 16	0.27 0.21 0.13	74.79	16.65 16.47 16.28	74.50
H ₂ O			16.80	57.99
H ₂ O marker	3, 30'			
TP# 10	16.26 15.86 15.49	96.24		80.38
TP# 1A	17.18 16.82 16.47	112.38	0.87 0.74 0.68	95.50
TP# 2A	17.06 16.79 16.58	128.44	0.81 0.67 0.53	111.65

MANHOLE K.I.M. (NORTH)

STA	BS	HI	FS	C.L.R.V	FS	ELEV @ gate	29
TP# 3A	15.85 16.12 14.95	143.00	0.95 0.80 0.25	127.64	15.90 15.32 14.67	99.98	
TP# 4A	12.15 10.49 8.83	151.45	2.98 2.10 1.32	140.96	18.6 1.60 1.32	101.58	
TP# 5A	6.44 4.13 1.77	140.09	16.54 14.69 12.81	136.76		99.98	
TP# 6A	5.66 3.99 2.33	129.50	17.09 15.38 13.37	125.51			
TP# 7A	14.02 9.04 7.06	124.44	18.77 14.10 12.19	115.40	6.15 4.36 4.37	95.43 97.22 97.21	
TP# 8A	2.47 1.37 0.26	113.56	14.31 12.05 10.21	112.19			
TP# 9A	0.68 0.43 0.19	97.66	17.13 16.33 15.51	97.23			
TP# 10A	2.37 1.44 0.51	82.96	17.08 16.14 15.20	81.52			
TP# 11A	5.71 4.17 2.60	71.50	17.11 15.63 14.15	67.33			
TP# 12A	16.54 15.28 15.21	85.88	2.43 1.50 0.57	70.00			
TP# 13A	17.61 14.58 15.35	101.62	1.15 0.84 0.52	85.04			
TP# 14A	16.46 15.44 14.42	115.30	3.06 1.76 1.47	99.86			

29

ELEV @ gate

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**REPORT FOR
PROFESSIONAL SURVEYING SERVICES
HORIZONTAL AND VERTICAL
LOCATION SURVEY**

BADGER ARMO AMMUNITION PLANT

**Task Order Memorandum 002
U.S. Army Toxic and Hazardous Materials Agency
(USATHA)**

Prepared for:

**E.C. Jordan Co.
261 Commercial Street
P.O. Box 7050
Portland, Maine 04112**

Prepared by:

**Vierbicher Associates, Inc.
940 East Main Street
Reedsburg, WI 53959**

January 2, 1990

**FINAL REPORT
FOR
SURVEYING SERVICES
TASK ORDER MEMORANDUM 002
MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
SAUK COUNTY WISCONSIN
USATHAMA - E.C. JORDAN CO.**

The services required for this project includes the horizontal and vertical locations for various monitoring wells and soil borings at Badger Army Ammunition Plant. The horizontal positions have been determined relative to the Universal Transverse Mercator (UTM) system per the NAD 27. The vertical locations are based on Mean Sea Level (MSL) from the 1929 General Adjustment.

The horizontal and vertical control shall be taken from existing control monuments and traverse control currently existing within the Army Ammunition Plant. This control information has been provided by the Army Ammunition Plant.

HORIZONTAL FIELD SURVEY

The horizontal location has been taken from the existing control or has been extended from said control into the survey areas. The equipment that was utilized for the horizontal control was a Lietz SET-4 electronic total station in combination with a Lietz SDR-22 electronic data collector. The grid factor for distances was keyed into the collector at a value of 0.9998919 this provides for an automatic reduction to grid distances required for geographic computations. The output produced by the data collector is based on Wisconsin State Plane Coordinates. A copy of the field notes generated by the data collector is attached as Appendix A. Due to equipment malfunction of the data collector some of the horizontal field data was gathered by manual field notes. These field notes are included under Appendix B. Multiple readings of horizontal angles and distances were taken to comply with required accuracies. This data was keyed into and adjusted through a surveying computation software program. The results of these computations are included under Appendix C.

VERTICAL FIELD SURVEY

The vertical location has also been taken from the existing control or has been extended from said control into the survey areas. The equipment that was used for the vertical survey was a Lietz B-1 automatic level. A copy of the field notes for the vertical survey is attached as Appendix B.

OFFICE COMPUTATIONS - REPORT GENERATION


The state plane coordinates determined by the data collector report was input into a batch file named ECJOR2PC. The file was then run through a program provided by National Ocean Service - National Geodetic Survey named GPPCGP. This program converts State Plane Coordinates to geographic positions (latitudes and longitude). The output from this run was placed in a batch file named ECJOR2GP. Finally this geographic position file was input through a National Ocean Service - National Geodetic Survey named UTMS. This converts the geographic position to the Universal Transverse Mercator System coordinates. The output file is named ECJOR2UT. The printout from this file list the UTM's for the wells and borings. A copy of the files generated are attached as Appendix D. The input format is detailed in the front of Appendix D. The report chart was then developed by integrating the vertical positions with the final UTM positions.

SURVEYOR'S CERTIFICATE

I, John L. Brey, Registered Land Surveyor, hereby certify that the above described location survey and the enclosed documentation are correct to the best of my knowledge and belief.

Dated this 2nd day of January, 1990.




John L. Brey, RIS-1319
Vierbicher Associates, Inc.
940 East Main Street
Reedsburg, WI 53959

**MONITORING WELL AND SOIL BORING LOCATIONS
BADGER ARMY AMMUNITION PLANT
TASK ORDER MEMORANDUM # 2**

OLEUM PLANT AND POND

MONITORING WELL OR SOIL BORING				ELEVATIONS		MONITORING WELL OR SOIL BORING
	UTH NORTHING (Y) METER	UTH EASTING (X) METER	GROUND SURFACE	WELL RISER	TOP PROTECTIVE CASING	
OPB-89-01	4,806,589.3	278,473.5	929.1			OPB-89-01
OPB-89-02	4,806,712.2	279,061.7	875.3			OPB-89-02
OPB-89-03	4,806,681.2	279,113.9	870.1			OPB-89-03
OPB-89-04	4,806,655.3	279,098.0	872.4			OPB-89-04
OPB-89-05	4,806,681.0	279,160.4	883.6			OPB-89-05
OPB-89-06	4,806,613.5	278,662.1	932.8			OPB-89-06
OPB-89-07	4,806,605.1	278,621.4	932.8			OPB-89-07
OPB-89-08	4,806,600.5	278,584.4	933.3			OPB-89-08
OPB-89-09	4,806,585.6	278,519.9	932.2			OPB-89-09
OPB-89-10	4,806,671.3	278,565.8	932.8			OPB-89-10
OPB-89-11	4,806,629.2	278,566.2	932.8			OPB-89-11
OPB-89-12	4,806,539.6	278,586.0	925.6			OPB-89-12
OPB-89-13	4,806,516.3	278,471.9	929.6			OPB-89-13
OPM-89-01	4,806,487.9	278,550.8	924.3	925.99	926.23	OPM-89-01
OPM-89-02	4,806,578.0	279,241.0	877.6	879.46	879.61	OPM-89-02
OPM-89-03	4,806,289.5	278,932.9	928.2	929.75	929.98	OPM-89-03

NITROGLYCERINE POND

NPM-89-01	4,804,671.6	279,174.7	861.5	862.77	863.03	NPM-89-01
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ROCKET PASTE AREA

RPM-89-01	4,803,845.3	279,502.4	886.2	888.65	888.83	RPM-89-01
RPM-89-02	4,803,851.0	279,100.8	873.0	874.76	874.95	RPM-89-02

OLD ACID AREA

OAB-89-01	4,805,863.8	276,115.0	873.5			OAB-89-01
OAB-89-02	4,805,805.0	276,121.7	876.8			OAB-89-02
OAB-89-03	4,805,804.8	279,050.1	875.0			OAB-89-03
OAM-89-01	4,805,744.0	276,076.2	872.2	874.38	874.47	OAM-89-01
OAM-89-02	4,805,673.4	276,115.5	872.4	874.91	875.14	OAM-89-02

OLD FUEL OIL TANK

FTB-89-01	4,805,640.9	276,062.2	874.4			FTB-89-01
FTM-89-01	4,805,592.7	276,061.9	872.4	874.27	874.46	FTM-89-01

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APPENDIX A

FIELD DATA PRINTOUT FROM SDR-22

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S 022 V03-01.7 Copyright 1988 by Datacom Group Ltd. All rights reserved.
19-Dec-89 07:53
Angle : Degrees Dist : Feet Press: Inch Hg
Temp : Fahrenheit Coord : N-E-Elv

J 3 Job id JORDAN
SCALE S.F. 0.999891900
N TE CP Sea level crn:N
N TE CP C and R crn : N
NUTE CP Atmos crn : Y
N TE TS 14-Dec-89 09:43

INSTR SET EDM <No Text> Serial no 093118
Theo <No Text> Serial no 000000 Mount: not applic
V.obs: Zenith EDM o/s <Null> Refl o/s <Null>
P.O. mm 0.000

P 1 KI 0029 Nrth 501768.430 East 2074666.280 Elv <Null>
Code MON

KI 0028 Nrth 501744.430 East 2076165.990 Elv <Null>
Code MON

N TE TS 14-Dec-89 10:05

STN TV 0028 Nrth 501744.430 East 2076165.990 Elv <Null>
Theo ht <Null> Code MON

ATMOS Press 29.50 inHg Temp 5.0 F

D 1 F1 0028-0029 Dist <Null> V.obs 90-11'15" H.obs 0-00'00"

JBS MD 0028-0300 Dist 2619.070 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0028-0300 Dist 2619.070 V.obs <Null> H.obs <Null>
Code Mult dist#2

Jbs F1 0028-0300 Dist 2619.070 V.obs 90-30'50" H.obs 55-25'30"
Code PK

TARGET Target ht 4.700

D 1 F1 0028-0029 Dist <Null> V.obs 90-10'00" H.obs 359-59'55"
Code MON

C S MD 0028-0300	Dist 2619.060 Code Mult dist#1	V.obs <Null>	H.obs <Null>
C S MD 0028-0300	Dist 2619.060 Code Mult dist#2	V.obs <Null>	H.obs <Null>
T SET	Target ht <Null>		
OBS F1 0028-0300	Dist 2619.060 Code PK	V.obs 90-30'55"	H.obs 55-25'30"
SET TV 0028	Count 002		
C S MC 0028-0029	Dist <Null> Code MON	V.ang 90-11'15"	Azmth 270-55'00"
C S MC 0028-0300	Dist 2618.992 Code PK	V.ang 90-30'53"	Azmth 326-20'33"
F S TV 0300	Nrth 503924.065 Code PK	East 2074714.690	Elev <Null>
E S TV 0028-0300	Azmth 326-20'33"	H.obs 55-25'30"	
SIN TV 0300	Nrth 503924.065 Theo ht <Null>	East 2074714.690 Code PK	Elev <Null>
N TE TS	14-Dec-89 10:47		
C S F1 0300-0028	Dist <Null> Code MON	V.obs 89-36'20"	H.obs 0-00'00"
C S ME 0300-0301	Dist 1296.380 Code Mult dist#1	V.obs <Null>	H.obs <Null>
OBS MD 0300-0301	Dist 1296.400 Code Mult dist#2	V.obs <Null>	H.obs <Null>
OBS F1 0300-0301	Dist 1296.390 Code PK	V.obs 89-41'35"	H.obs 116-37'55"
OBS F1 0300-0028	Dist <Null> Code MON	V.obs 89-33'20"	H.obs 359-59'55"
OBS MD 0300-0301	Dist 1296.380 Code Mult dist#1	V.obs <Null>	H.obs <Null>
C S MD 0300-0301	Dist 1296.400 Code Mult dist#2	V.obs <Null>	H.obs <Null>
C S F1 0300-0301	Dist 1296.390	V.obs 89-41'30"	H.obs 116-38'00"

(SLOPE GROUND DIST)

 Horiz Snd Dist:
2618.603

Code PK

SET TV 0300

Count 002

C 3 MC 0300-0028	Dist <Null> Code MON	V.ang 89-34'50"	Azmth 146-20'33"
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C 3 MC 0300-0301	Dist 1296.354 Code PK	V.ang 89-41'33"	Azmth 262-58'33"
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F 3 TV 0301	Nrth 503765.557 Code PK	East 2073428.224	Elv <Null>
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N TE TS	14-Dec-89 11:20		
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Bin TV 0301	Nrth 503765.557 Theo ht <Null>	East 2073428.224 Code PK	Elv <Null>
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DLS F1 0301-0300	Dist <Null> Code PK	V.obs 90-19'45"	H.obs 0-00'00"
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C 3 MD 0301-0302	Dist 395.110 Code Mult dist#1	V.obs <Null>	H.obs <Null>
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C 3 MD 0301-0302	Dist 395.080 Code Mult dist#2	V.obs <Null>	H.obs <Null>
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C 3 F1 0301-0302	Dist 395.095 Code OPMB902	V.obs 94-12'40"	H.obs 169-02'40"
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E F TV 0301	Count 002		
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QSS MC 0301-0300	Dist <Null> Code PK	V.ang 90-18'45"	Azmth 82-58'33"
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QSS MC 0301-0302	Dist 395.084 Code OPMB902	V.ang 94-12'40"	Azmth 252-01'13"
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QLS F1 0301-0300	Dist <Null> Code PK	V.obs 90-21'05"	H.obs 0-00'00"
------------------	------------------------	-----------------	----------------

3 3 MD 0301-0303	Dist 683.450 Code Mult dist#1	V.obs <Null>	H.obs <Null>
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3 3 MD 0301-0303	Dist 683.430 Code Mult dist#2	V.obs <Null>	H.obs <Null>
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3 3 F1 0301-0303	Dist 683.440 Code OPBB905	V.obs 92-06'40"	H.obs 204-36'15"
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3 3 TV 0301	Count 002		
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C 3 MC 0301-0300	Dist <Null> Code PK	V.ang 90-21'05"	Azmth 82-58'33"
C 3 MC 0301-0303	Dist 883.421 Code DPB8905	V.ang 92-06'40"	Azmth 287-34'48"
OPS F1 0301-0300	Dist <Null> Code PK	V.obs 90-20'45"	H.obs 0-00'00"
NOTE TS	14-Dec-89 11:35		
C 3 MD 0301-0304	Dist 861.080 Code Mult dist#1	V.obs <Null>	H.obs <Null>
C 3 MD 0301-0304	Dist 861.010 Code Mult dist#2	V.obs <Null>	H.obs <Null>
C 3 F1 0301-0304	Dist 861.045 Code DPB8904	V.obs 92-09'45"	H.obs 194-41'10"
S 1 TV 0301	Count 002		
OBS MC 0301-0300	Dist <Null> Code PK	V.ang 90-20'45"	Azmth 82-58'33"
OBS MC 0301-0304	Dist 861.021 Code DPB8904	V.ang 92-09'45"	Azmth 277-39'43"
CLS F1 0301-0300	Dist <Null> Code PK	V.obs 90-11'25"	H.obs 0-00'00"
C 3 MD 0301-0305	Dist 828.830 Code Mult dist#1	V.obs <Null>	H.obs <Null>
C 3 MD 0301-0305	Dist 828.820 Code Mult dist#2	V.obs <Null>	H.obs <Null>
C 3 F1 0301-0305	Dist 828.875 Code DPB8903	V.obs 92-04'45"	H.obs 201-06'20"
S 1 TV 0301	Count 002		
OBS MC 0301-0300	Dist <Null> Code PK	V.ang 90-11'25"	Azmth 82-58'33"
OBS MC 0301-0305	Dist 828.852 Code DPB8903	V.ang 92-04'45"	Azmth 284-04'53"
CLS F1 0301-0300	Dist <Null> Code PK	V.obs 90-21'30"	H.obs 0-00'00"
C 3 MD 0301-0306	Dist 1022.960	V.obs <Null>	H.obs <Null>

Code Mult dist#1

JES MD 0301-0306	Dist 1022.960 Code Mult dist#2	V.obs <Null>	H.obs <Null>
CLS F1 0301-0306	Dist 1022.960 Code DPB8902	V.obs 91-52'35"	H.obs 203-54'30"
E T TV 0301	Count 002		
C B MC 0301-0300	Dist <Null> Code PK	V.ang 90-21'30"	Azmth 82-58'33"
CBS MC 0301-0306	Dist 1022.931 Code DPB8902	V.ang 91-52'35"	Azmth 286-53'03"
BFT TV 0301	Count 006		
C B MC 0301-0300	Dist <Null> Code PK	V.ang 90-19'42"	Azmth 82-58'33"
C B MC 0301-0306	Dist 1022.931 Code DPB8902	V.ang 91-52'35"	Azmth 286-53'03"
C B MC 0301-0305	Dist 828.852 Code DPB8903	V.ang 92-04'45"	Azmth 284-04'53"
C B MC 0301-0304	Dist 861.021 Code DPB8904	V.ang 92-09'45"	Azmth 277-39'43"
C B MC 0301-0303	Dist 683.421 Code DPB8905	V.ang 92-06'40"	Azmth 287-34'48"
CBS MC 0301-0302	Dist 395.084 Code DPB8902	V.ang 94-12'40"	Azmth 252-01'13"
PBS TV 0306	Nrth 504062.464 Code DPB8902	East 2072450.018	Elv <Null>
PBS TV 0305	Nrth 503957.062 Code DPB8903	East 2072324.894	Elv <Null>
PBS TV 0304	Nrth 503880.261 Code DPB8904	East 2072575.590	Elv <Null>
FUS TV 0303	Nrth 503971.813 Code DPB8905	East 2072777.234	Elv <Null>
E B TV 0302	Nrth 503643.945 Code DPB8902	East 2073053.486	Elv <Null>
E B TV 0301-0306	Azmth 286-53'03"	H.obs 203-54'30"	

Here Grid Dist

AR 203°54'30"

1022 272

AR 201°06'20"

727 272

AR 204°36'15"

682 772

AR 204°36'15"

AR 204°36'15"

682 772

C E TS 14-Dec-89 11:50

E TV 0301-0306 Azmth 286-53'03" H.obs 203-54'30"

Es F1 0301-0300 Dist <Null> V.obs 90-19'30" H.obs 0-00'00"
Code PKEL MD 0301-0307 Dist 2785.010 V.obs <Null> H.obs <Null>
Code Mult dist#1IE MD 0301-0307 Dist 2785.010 V.obs <Null> H.obs <Null>
Code Mult dist#2IE F1 0301-0307 Dist 2785.010 V.obs 89-32'25" H.obs 179-47'30"
Code PKIE F1 0301-0300 Dist <Null> V.obs 90-20'30" H.obs 359-59'45"
Code PKIE MD 0301-0307 Dist 2785.000 V.obs <Null> H.obs <Null>
Code Mult dist#1IE MD 0301-0307 Dist 2784.990 V.obs <Null> H.obs <Null>
Code Mult dist#2JPS F1 0301-0307 Dist 2784.995 V.obs 89-32'30" H.obs 179-47'20"
Code PK

JOTE TS 14-Dec-89 12:05

J F1 0301-0300 Dist <Null> V.obs 90-22'05" H.obs 359-59'50"
Code PKJ MD 0301-0307 Dist 2785.010 V.obs <Null> H.obs <Null>
Code Mult dist#1J MD 0301-0307 Dist 2784.980 V.obs <Null> H.obs <Null>
Code Mult dist#2J : F1 0301-0307 Dist 2784.995 V.obs 89-32'20" H.obs 179-47'15"
Code PK

JTV TV 0301 Count 002

JBS MC 0301-0300 Dist <Null> V.ang 90-20'42" Azmth 82-58'33"
Code PKJBS MC 0301-0307 Dist 2784.922 V.ang 89-32'25" Azmth 262-46'03"
Code PK

J : F1 0301-0300 Dist <Null> V.obs 90-20'35" H.obs 0-00'00"

Code PK

JBS MD 0301-0308	Dist 84.240 Code Mult dist#1	V.obs <Null>	H.obs <Null>
I B MD 0301-0308	Dist 84.260 Code Mult dist#2	V.obs <Null>	H.obs <Null>
I B F1 0301-0308	Dist 84.250 Code S831151	V.obs 100-20'40"	H.obs 80-31'55"
E T TV 0301	Count 002		
ITS MC 0301-0300	Dist <Null> Code PK	V.ang 90-20'35"	Azmth 82-58'33"
JRS MC 0301-0308	Dist 84.248 Code S831151	V.ang 100-20'40"	Azmth 163-30'28"
NOTE TS	14-Dec-89 12:20		
E T TV 0301	Count 003		
ITS MC 0301-0300	Dist <Null> Code PK	V.ang 90-20'38"	Azmth 82-58'33"
MD 0301-0308	Dist 84.248 Code S831151	V.ang 100-20'40"	Azmth 163-30'28"
JBS MC 0301-0307	Dist 2784.922 Code PK	V.ang 89-32'25"	Azmth 262-46'03"
PJS TV 0309	Nrth 503686.097 Code S831151	East 2073451.749	Elv <Null>
PJS TV 0307	Nrth 503414.997 Code PK	East 2070665.847	Elv <Null>
S I TV 0307	Nrth 503414.997 Theo ht <Null>	East 2070665.847 Code PK	Elv <Null>
I E TS	14-Dec-89 13:37		
STN TP 0307	Nrth 503414.997 Theo ht <Null>	East 2070665.847 Code PK	Elv <Null>
3KB TP 0307-0301	Azmth 82-46'03"	H.obs 0-00'00"	
I B F1 0307-0301	Dist <Null> Code PK	V.obs 90-33'35"	H.obs 0-00'00"
I B MD 0307-0309	Dist 201.110	V.obs <Null>	H.obs <Null>

Code Mult dist#1 *GR10 DIST = 201.036 AR 54° 37' 30"*
Az = 137° 27' 30"

JBS MD 0307-0309 Dist 201.110 V.obs <Null> H.obs <Null>
Code Mult dist#2

10.14
JBS TP 0309 Nrth 503267.033 East 2070801.943 Elv <Null> *137.5*
Code DPMB901

JBS MD 0307-0310 Dist 246.880 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0307-0310 Dist 246.880 V.obs <Null> H.obs <Null>
Code Mult dist#2 *GR10 DIST = 246.778 AR 1° 14' 05"*
Az = 84° 00' 08"

JBS TP 0310 Nrth 503440.782 East 2070911.274 Elv <Null> *246.8*
Code DPB8912

JBS MD 0307 Dist 141.280 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0307 Dist 141.290 V.obs <Null> H.obs <Null>
Code Mult dist#2

JBS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#2

JBS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#2

JBS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0307 Dist 141.240 V.obs <Null> H.obs <Null>
Code Mult dist#2

JBS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#2

JBS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#1

JBS MD 0307 Dist 141.230 V.obs <Null> H.obs <Null>
Code Mult dist#1

J 1 MD 0307	Dist 141.230 Code Mult dist#2	V.obs <Null>	H.obs <Null>
J 3 MD 0307	Dist 141.230 Code Mult dist#1	V.obs <Null>	H.obs <Null>
JPS MD 0307	Dist 141.230 Code Mult dist#2	V.obs <Null>	H.obs <Null>
PDS TP 0311	Nrth <Null> Code DPB8913	East <Null>	Elv <Null>
3KB TP 0307-0301	Azmth 82-46'03"	H.obs <Null>	
J 1 F1 0307-0301	Dist <Null> Code PK	V.obs 90-30'05"	H.obs <Null>
P 1 TP 0312	Nrth <Null> Code DPB8913	East <Null>	Elv <Null>

* End of Report *

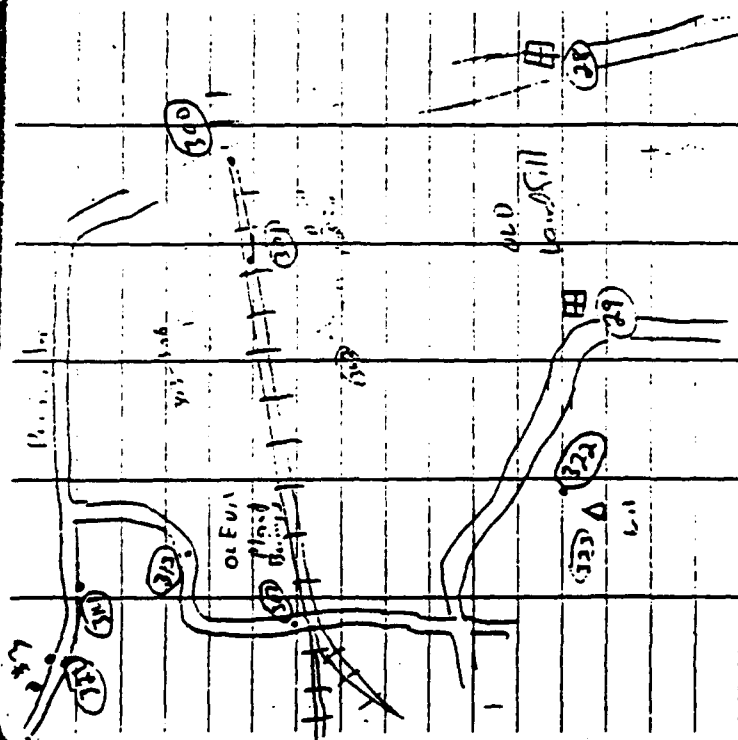
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APPENDIX B

HORIZONTAL AND VERTICAL SURVEY FIELD NOTES

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E. C. Jordan
Well + Boiling Loc.
12/17/89
Baldy 50
Schneider/Eink.



300 Pl. m. E tracks C. W. Ed. Per. Rd.
 301 Pl. m. E tracks C. W. Ed. Per. Rd.
 302 Well Oil 8900
 303 Bores OPB 8905
 304 Bores OPB 8901
 305 Bores OPB 8903
 306 Bores OPB 8902

307	PK	in E	5' N	of Rd	Line	Kind
308	Well	S 83	1151			
309	Well	OPM	8901			
310	Bores	OPB	8912			
311	"	OPB	8913			
312	"	OPB	8909			
313	PK	" Rd	Bores	5400	(in Road)	
314	PK	" Rd	Bores	5400	5400 W. of Intake	
315	Bores	OPB	8910			
316	"	OPB	8911			
317	"	OPB	8908			
318	"	OPB	8907			
319	"	OPB	8901			
320	"	OPB	8906			
321	PK	" Rd	Bores	5400	(in Road)	
322	"	" Rd	Bores	5400	5400 W. of Intake	
323	Bores	OPB	8903			
324	"	OPB	8902			
325	"	OPB	8901			
326	"	OPB	8900			

301/307/311	180°15'	141.2	6.114	20/302/323	11/11/31.2	9819
301/307/312	283°06'	170.3	6.114			94230
301/307/313	29°06'10"	294°32'05"				
307/313	718°02'	1604	718.330			
307/313/314	162°17'30"	325°31'05"	162°17'32"			
313/314	610.70	610.71	610.71			
307/313/315	55°31'	266.05	6.114			
316	33°12'	440.83	6.114			
317	34°11'09"	482.11	6.114			
318	32°07'00"	418.77	6.114			
319	71°49'	613.71	6.114			
313/313/320	91°54'	136.11	6.114			
313/314/321	93°26'40"	186°53'15"	73°26'38"			
314/321	715.31	715.32	713.243			
314/321/3	215°31'25"	47°08'50"	203°31'25"			
321/3	192°03'19"	178.22	6.114			
28/29/30	201°05'55"	42°11'	55°20'05'51"			
31/302	472°15'	272°25'	272°25'			

311	927.03	11/11/31.2	9819
312	913.92	15.49	913.54
313	906.02	14.16	899.76
314	898.16	10.48	895.54
315	910.04	09.6	897.20
316	909.28	2.08	902.36
317	914.72	2.09	907.19
318	911.03	11.39	910.33
319	12.34	898.69	
320	5.15	905.88	

	SIDE	Loop	
TP 8	0.80	899.49	898.69
S83 1151	1.38	894.94	893.56/54
TP 10	9.02	890.80	881.78
TP 10 890.2			879.61
H.P. PVC			879.46
Gnd			877.6
TP 11	13.78	903.95	890.17
TP 12	1.15	910.52	903.07
TP 9			905.88
	MAIN LOOP		
TP 9 1.1	4.64	910.52	905.88
TP 13 R.1			907.52
	SIDE LOOP		
TP 10 13	0.28	907.80	907.52
TP 14	0.64	894.68	894.04
TP 14 890.08		884.94	883.58
OPB 8905	1.36		
OPB 8903			870.1
OPB 8902			875.3
OPB 8901			872.4
TP 15	13.40	896.33	882.93
TP 16	12.99	907.75	894.76
TP 13 R.1			907.52
SIDE LOOP	12.67		907.52

	MAIN	Loop	
TP 13	7.73	915.25	907.52
TP 17	8.65	922.945	914.295
TP 18	7.85	929.20	921.35
TP 19			926.295
	SIDE	Loop	
TP 19	10.30	936.59	926.29
OPB 8906			932.8
OPB 8907			932.8
TP 11 3.0		938.10	935.00
OPB 8908			933.3
OPB 8911			932.8
OPB 8910			932.8
TP 20	6.92	938.65	931.73
OPB 8909			932.2
OPB 8910			929.1
OPB 8913			929.6
TP 21	5.38	931.13	925.75
TP 21			926.23
TP 21			925.99
TP 21			924.3
TP 21			925.6
TP 21			926.23
TP 21			926.29

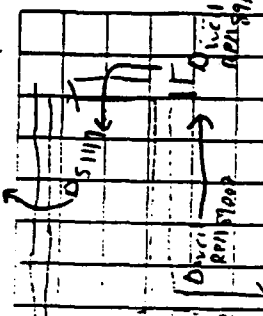
SIDE LOOP 31.90 51.875

19 May

10/9/324	270° 30' 25"	81° 00' 45"	270° 30' 28"
9/324	81° 16' 0"	61° 16' 0"	81° 50' 5"
10/9/325	6° 01' 50"	138° 30' 30"	69° 15' 15"
9/325	15° 51' 50"	151° 15' 2"	155° 15' 139
9/325/326	260° 04' 30"		222° 97' 22.862
9/325/327	14° 48' 55"	229° 37' 55"	114° 48' 57"
325/327	70° 11' 72.10	122° 10'	61° 722.925
325/327/328	87° 42' 30"		258.34258.39

TP19 R-1	Loop	926.285
TP22	8.11	932.425
TP24	8.11	940.005
TP25	9.11	948.035
Well OPM 843	11.11	938.865
	11.11	934.865
	13.17	929.98
	9.52	929.75
	7.75	928.2
TP26	5.67	936.245
TP27	0.66	922.88
TP28	9.56	924.34
S1132 S1141	8.10	914.78
	8.88	915.46/48
TP29	7.07	931.12
TP30	4.38	923.78
TP31	7.21	926.13
DEL 230.40	3.71	922.421
DEL 13.55	13.015	
DIFF. W. 2.21	2.195	[ELOSORE 0.015]
ROCKE7	11.11	
#324	NPI	18701
#325	11.11 - Rock 1	
#326	RPM	8902
#327	1.11 E 5 N. 5 P. 1	
#328	RPM	8901

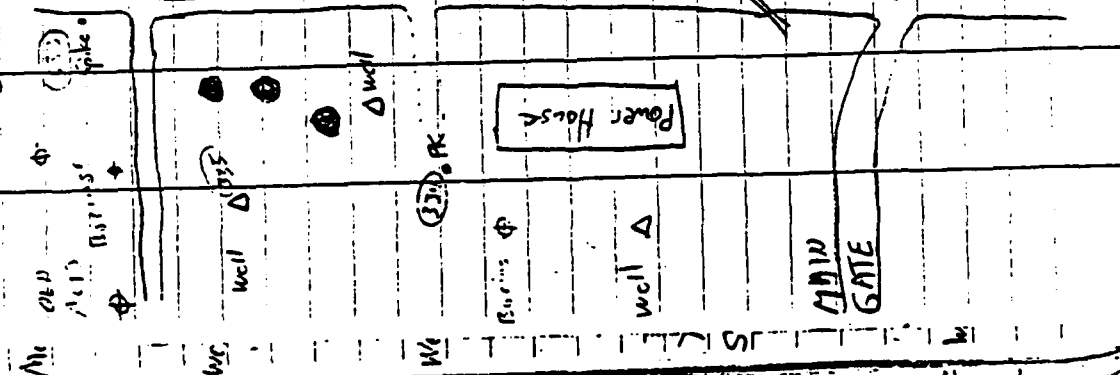
108 Wm 8901



ST A	BS	HI	FS	Elev
Mercury	3.116	885.82		882.36
TP 32	9.115	887.67	7.60	878.22
TP 33	2.50	887.37	2.80	884.87
TP 34	2.76	881.55	8.58	878.79
Well RPH 8901 PVC			6.79	874.76
" " Good Steel Casing			8.52	873.0
	4.52	879.47	6.60	874.95
TP 35	6.32	883.79	2.00	877.47
TP 36	8.47	888.97	3.24	880.55
Well RPH 8901 PVC			0.32	888.65
" " Good Steel Casing			2.75	886.2
	2.445	881.28	0.14	888.83
TP 37	4.34	889.33	6.29	884.99
TP 38	4.23	885.08	8.48	880.85
TP 39 (154 No 153 S. 111)	4.885	880.74	8.35	876.73
TP 40	5.50	881.07	5.17	875.57
S1119 Steel Casing				
Appx 4 ft - 5 ft			1.37	877.10/11
TP 41	5.46	884.51	2.02	879.05
TP 42	1.01	878.89	6.63	877.88
TP 43	3.35	873.09	9.15	869.74
Well NPH 8901 PVC			10.32	862.77
" " Good Steel Casing			11.62	861.5
" "	13.66	876.69	10.06	863.03

TP 41	1180	885.66	2.85	873.84
Well S1124	5.72	879.94/94		
Σ	93.35	95.68		
	2.15	2.445		
	2.12			
Closure	5.025			

511



#	Gen.	Depth	Lat	Long	Time	Alt	Dist	Time	Alt	Dist
#329	Gen.									
#330	Depth									
#331	PK	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#332	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#333	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#334	PK	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#335	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#336	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#337	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#338	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#339	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#340	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#341	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#342	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#343	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#344	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#345	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#346	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#347	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#348	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#349	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#350	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#351	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#352	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#353	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#354	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#355	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#356	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#357	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#358	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#359	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#360	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#361	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#362	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#363	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#364	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#365	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#366	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#367	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#368	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#369	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#370	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#371	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#372	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#373	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#374	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#375	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#376	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#377	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#378	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#379	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#380	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#381	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#382	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#383	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#384	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#385	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#386	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#387	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#388	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#389	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#390	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#391	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#392	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#393	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#394	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#395	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#396	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#397	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#398	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#399	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					
#400	Sp.	8.5	24° 42' 05"	133° 24' 15"	211° 42' 07"					

STN	BS	HT	FS	EL
M Comm	5.98	880.46		874.48
TP 45	5.92	880.98	5.40	875.06
TP 46	4.08	881.52	3.54	877.44
TP 47	4.19	876.94	8.77	872.75
Well FAM 8901			2.48	874.46
" " PVC			2.67	874.27
" " Gnd			4.54	872.4
TP 48	4.79	872.24	4.47	872.45
PPB 8901			2.85	874.4
Well OAM 8902			2.10	875.14
" " PVC			2.33	874.91
" " Gnd			4.85	872.4
Well OAM 8901			2.86	874.38
" " Gnd			5.05	872.2
" " Gnd	6.17	880.64	2.77	874.47
OAB 8903			5.66	875.0
OAB 8901			7.11	873.5
OAB 8902			3.87	876.8
TP 49 R.I.	4.02	881.77	2.89	877.75
TP 50	5.14	881.27	5.64	876.13
TP 51	5.13	882.39	4.01	877.26
TP 52 (PK)	3.39	880.43	5.35	877.04
TP 45	5.32	880.38	5.37	875.06
Comm			5.90	874.48
Σ	54.125		54.11	
	CLOSURE: 0.015			

APPENDIX C

SURVEY TRAVERSE COMPUTATIONS AND ADJUSTMENTS

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3
E
28
EA
28

START
28
300

ART
28
TR
300

301
TR
307

313
314
TR
321

0
3

NW 33 39 27.0 2618.886

NW 33 39 27.0 2618.603

SW 82 58 33.0 1296.195

SW 82 46 3.0 2784.531

NE 17 19 8.0 748.332

NE 0 6 40.0 640.637

NW 86 26 42.0 713.243

NW 62 52 17.0 198.199

NW 55 53 13.4 0.344

504904.8300 2070001.3100

501744.4300 2076165.9900

501768.4300 2074666.2800

501744.4300 2076165.9900

503924.3004 2074714.5324

501744.4300 2076165.9900

503924.0648 2074714.6892

503765.5558 2073428.2225

503414.9939 2070665.8468

504129.3986 2070888.6174

504770.0344 2070889.8598

504814.2603 2070177.9892

504904.6369 2070001.5950

504904.8300 2070001.3100

PRECISION RATIO = 1 : 25141

MPASS RULE ADJUSTMENT

28
300
AJ
301

307
AJ
313

314
321
AJ

3

NW 33 39 30.0 2618.696

SW 82 58 38.2 1296.232

SW 82 46 8.2 2784.611

NE 17 19 0.4 748.340

NE 0 6 33.5 640.651

NW 86 26 38.0 713.266

NW 62 52 16.1 198.207

501744.4300 2076165.9900

503924.1210 2074714.6063

503765.6398 2073428.0986

503415.1376 207 5.6347

504129.5584 2070888.3815

504770.2079 2070889.6036

504814.4491 2070177.7105

504904.8300 2070001.3100

START
300

301

302

SW 82 58 38.2 1296.232

SW 72 1 18.2 393.975

NW 72 25 6.8 682.883

503924.1210 2074714.6063

503765.6398 2073428.0986

503644.0368 2073053.3600

503971.9123 2073777.1140

304					503880.3253	2072573.4873
305	NW	75 55 1.8	828.217		503967.1653	2072624.7737
306	NW	73 6 51.9	1022.272		504062.5708	2072449.9000
308	SE	16 29 26.8	82.870		503686.1786	2073451.6221
IN 307	SW	82 46 8.2	2784.611		503415.1376	2070665.6347
309	SE	42 36 21.8	201.036		503267.1700	2070801.7268
310	NE	84 0 13.2	246.778		503440.9173	2070911.0624
SS 311	SW	63 1 8.1	141.200		503351.0757	2070539.8034
312	NE	7 52 8.2	170.340		503583.8736	2070688.9555
IN 313	NE	17 19 0.4	748.340		504129.5584	2070888.3815
315	SE	76 37 47.7	266.020		504068.0439	2071147.1915
316	SW	12 50 0.4	266.020		503870.1836	2070829.2938
317	SE	1 11 59.6	489.360		503732.2738	2070835.4893
ART 307					503640.3057	2070898.6289
IN 313	NE	17 19 0.4	748.340		503415.1376	2070665.6347
319	SW	33 8 0.4	643.870		504129.5584	2070888.3815
TR 318	SE	15 33 59.6	487.660		503590.3818	2070536.4480
320	NE	76 20 0.4	136.420		503659.7860	2071019.2488
ART 28					503692.0181	2071151.8063
29	NW	89 4 59.4	1499.902		501744.4300	2076165.9900
TR 322	NW	67 59 2.4	2728.958		501768.4300	2074666.2800
323	SW	24 23 57.6	142.300		502791.4220	2072136.3195
EA 9					502661.8311	2072077.5362
E 10					496506.0900	2073031.9900
ART 10					496412.0600	2076909.4500
IN 9	NW	88 36 39.0	3878.600		496506.0900	2073031.9900
324	NE	1 53 44.0	881.505		497387.1126	2073061.1480
325	SE	19 21 24.0	1551.339		495042.4426	2073546.1778
SS 326	SW	60 43 6.1	722.862		494688.8885	2072915.6788
327	SE	84 32 27.0	722.025		494973.7517	2074264.9279
TR	SW	7 10 3.0	258.310			

329			498494.6500	2063570.8600
330			498467.5100	2065207.1500
330	NW	89 2 59.2	1636.515	498467.5100 2065207.1500
329	NW	27 20 52.2	849.818	498494.6500 2063570.8600
331	NE	0 43 39.8	1038.578	499249.4874 2063180.4612
332	NW	0 1 9.2	1526.405	500287.9817 2063193.6521
333	SW	59 14 15.8	467.420	500775.8923 2063179.9490
335	SW	82 36 45.8	261.890	500536.8177 2062778.2965
336	NW	61 17 49.2	329.140	500742.2197 2062920.2328
337	SW	85 2 5.8	496.340	500933.9682 2062891.2534
338			500732.9350	2062685.4715
START				
331	NE	0 43 39.8	1038.578	499249.4874 2063180.4612
332	SW	86 30 4.8	381.453	500287.9817 2063193.6521
334	SW	15 45 54.8	234.170	500264.7031 2062812.9041
339	SW	45 28 19.8	95.990	500039.3418 2062749.2809
340	NE	66 7 14.9	112.160	500197.3895 2062744.4718
341			500310.1065	2062915.4633
LIST				
3			504904.8300	2070001.3100
9			496506.0900	2073031.9900
10			496412.0600	2076909.4500
28			501744.4300	2076165.9900
29			501768.4300	2074666.2800
300			503924.1210	2074714.6063
301			503765.6398	2073428.0986
302			503644.0368	2073053.3600
303			503971.9123	2072777.1140
304			503880.3653	2072575.4673
305			503967.1653	2072624.7737
306			504062.5706	2072449.9000
307			503415.1376	2070665.6347
308			503686.1786	2073451.6221
309			503267.1700	2070801.7268
310			503440.9173	2070911.0624
311			503351.0757	2070539.8034
312			503583.8736	2070688.9555
313			504129.5584	2070888.3815
314			504770.2079	2070889.6036
315			503870.1836	2070889.6036

316	503732.2736	2070635.4893
317	503640.3057	2070898.6289
318	503653.7860	2071019.2489
319	503590.3818	2070536.4480
320	503692.0181	2071151.8063
321	504814.4491	2070177.7105
322	502791.4220	2072136.3195
323	502661.8311	2072077.5362
324	497387.1126	2073061.1480
325	495042.4426	2073546.1778
326	494688.8885	2072915.6788
327	494973.7517	2074264.9279
328	494717.4583	2074232.6982
329	498494.6500	2063570.8600
330	498467.5100	2065207.1500
331	499249.4874	2063180.4612
332	500287.9817	2063193.6521
333	500775.8923	2063179.9490
334	500264.7031	2062812.9041
335	500536.8177	2062778.2965
336	500742.2197	2062920.2328
337	500933.9682	2062891.2534
338	500732.9350	2062685.4715
339	500039.3418	2062749.2809
340	500197.3895	2062744.4718
341	500310.1065	2062915.4633

(ORDINATES STORED IN FILE JORDAN2

DATA DISK #4

APPENDIX D

**COMPUTER INPUT - OUTPUT FILES
UTM CONVERSION FILES**

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Q 010+81*	OPB-89-01	2070536448	5035903824803
Q 020+81*	OPB-89-02	2072449900	5040625714803
Q 030+81*	OPB-89-03	2072624774	5039671654803
Q 040+81*	OPB-89-04	2072575467	5038803654803
Q 050+81*	OPB-89-05	2072777114	5039719124803
Q 060+81*	OPB-89-06	2071151806	5036320184803
Q 070+81*	OPB-89-07	2071019249	5036597864803
Q 080+81*	OPB-89-08	2070898629	5036403064803
Q 090+81*	OPB-89-09	2070688955	5035838744803
Q 100+81*	OPB-89-10	2070829294	5038701844803
Q 110+81*	OPB-89-11	2070835489	5037322744803
Q 120+81*	OPB-89-12	2070911062	5034409174803
Q 130+81*	OPB-89-13	2070539803	5033510764803
Q 140+81*	OPB-89-01	2070801727	5032671704803
Q 150+81*	OPB-89-02	2073053360	5036440374803
Q 160+81*	OPB-89-03	2072077536	5026618314803
Q 170+81*	OPB-89-01	2073061148	4973871134803
Q 180+81*	OPB-89-01	2074232698	4947174584803
Q 190+81*	OPB-89-02	2072915679	4946888854803
Q 200+81*	OPB-89-01	2062891253	5009339684803
Q 210+81*	OPB-89-02	2062920233	5007422204803
Q 220+81*	OPB-89-03	2062685472	5007329354803
Q 230+81*	OPB-89-01	2062778296	5005368184803
Q 240+81*	OPB-89-02	2062915463	5003101064803
Q 250+81*	FTB-89-01	2062744472	5001973904803
Q 260+81*	FTB-89-01	2062749281	5000393424803

00110*80*000 OPB-89-01	43225311020N089440483570W
00120*80*000 OPB-89-02	43225771317N089433890411W
000030*80*000 OPB-89-03	43225676517N089433654027W
00140*80*000 OPB-89-04	43225590942N089433721181W
00150*80*000 OPB-89-05	43225680712N089433447714W
000060*80*000 OPB-89-06	43225409466N089435649852W
0170*80*000 OPB-89-07	43225378049N089435829492W
0180*80*000 OPB-89-08	43225359190N089435992913W
000090*80*000 OPB-89-09	43225304112N089440277084W
01100*80*000 OPB-89-10	43225586465N089440085807W
0110*80*000 OPB-89-11	43225450228N089440078015W
01120*80*000 OPB-89-12	43225162209N089435976940W
000130*80*000 OPB-89-13	43225074641N089440480058W
0140*80*000 OPH-89-01	43224990941N089440125745W
0150*80*000 OPH-89-02	43225355965N089433075097W
000160*80*000 OPH-89-03	43224388972N089434400820W
0170*80*000 OPH-89-01	43215175820N089433092467W
0180*80*000 RPH-89-01	43212535088N089431518573W
000190*80*000 RPH-89-02	43212511181N089433301405W
01200*80*000 OAB-89-01	43222709937N089454846402W
0110*80*000 OAB-89-02	43222520462N089454807900W
000120*80*000 OAB-89-03	43222511947N089455125793W
000230*80*000 OAH-89-01	43222317978N089455000865W
0140*80*000 OAH-89-02	43222093665N089454816019W
0150*80*000 FTB-89-01	43221982811N089455047962W
000260*80*000 FTM-89-01	43221826689N089455042056W

FINAL COORDINATE LISTING
FOR 89800

NATIONAL GEODETIC SURVEY
GP TO UTM PROGRAM
1927 DATUM

VERSION 1.0

STATION NAME	LATITUDE (NORTH)	LONGITUDE (WEST)	NORTHING(Y) METER	EASTING(X) METER	ZONE	CONVERGENCE			SCALE FACTOR	ELEV (M)	GEOID HT(M)
						D	N	S			
B-89-01	43 22 53.11020	089 44 4.83570	4806589.292	278473.529	16	-1	52	44.69	1.00020369		
B-89-02	43 22 57.71317	089 43 38.90411	4806712.177	279061.709	16	-1	52	27.01	1.00020048		
OPB-89-03	43 22 56.76517	089 43 36.54027	4806681.190	279113.944	16	-1	52	25.35	1.00020020		
B-89-04	43 22 55.90942	089 43 37.21181	4806635.284	279097.969	16	-1	52	25.79	1.00020029		
B-89-05	43 22 56.80712	089 43 34.47714	4806680.966	279160.411	16	-1	52	23.94	1.00019995		
OPB-89-06	43 22 54.09466	089 43 56.49852	4806613.511	278662.135	16	-1	52	38.99	1.00020266		
OPB-89-07	43 22 53.78049	089 43 58.29492	4806605.144	278621.393	16	-1	52	40.21	1.00020288		
B-89-08	43 22 53.59190	089 43 59.92913	4806600.531	278584.428	16	-1	52	41.33	1.00020308		
B-89-09	43 22 53.04112	089 44 2.77084	4806585.637	278519.924	16	-1	52	43.26	1.00020343		
OPB-89-10	43 22 55.86465	089 44 0.85807	4806671.332	278565.824	16	-1	52	42.05	1.00020318		
B-89-11	43 22 54.50228	089 44 0.78015	4806629.245	278566.199	16	-1	52	41.95	1.00020318		
B-89-12	43 22 51.62209	089 43 59.76940	4806539.644	278586.030	16	-1	52	41.15	1.00020307		
B-89-13	43 22 50.74641	089 44 4.80058	4806516.342	278471.927	16	-1	52	44.58	1.00020369		
B-89-14	43 22 49.90941	089 44 1.25745	4806487.905	278550.811	16	-1	52	42.11	1.00020326		
B-89-15	43 22 53.55965	089 43 30.75097	4806576.038	279240.984	16	-1	52	21.26	1.00019951		
OPB-89-16	43 22 43.88972	089 43 44.00820	4806289.476	278932.893	16	-1	52	30.04	1.00020118		
OPB-89-17	43 21 51.75820	089 43 30.92467	4804671.563	279174.749	16	-1	52	19.25	1.00019987		
B-89-18	43 21 25.35088	089 43 15.18573	4803845.317	279502.435	16	-1	52	7.51	1.00019809		
B-89-19	43 21 25.11181	089 43 33.01405	4803851.048	279100.847	16	-1	52	19.76	1.00020027		
OAB-89-20	43 22 27.09937	089 45 48.46402	4805863.753	276115.090	16	-1	53	55.04	1.00021661		
B-89-21	43 22 25.20462	089 45 48.07900	4805805.012	276121.727	16	-1	53	54.71	1.00021657		
B-89-22	43 22 25.11947	089 45 51.25793	4805804.757	276050.096	16	-1	53	56.89	1.00021697		
OAB-89-23	43 22 23.17978	089 45 50.00865	4805743.984	276076.228	16	-1	53	55.96	1.00021682		
B-89-24	43 22 20.93665	089 45 48.16019	4805673.403	276115.536	16	-1	53	54.61	1.00021661		
B-89-25	43 22 19.82811	089 45 50.47962	4805640.935	276062.200	16	-1	53	56.17	1.00021690		
FTB-89-26	43 22 18.26689	089 45 50.42056	4805592.726	276061.333	16	-1	53	56.08	1.00021690		

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FUDS PIEZOMETER AND WELL SURVEY DATA

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**** NO STAPLES PLEASE ****

FACSIMILE HEADER SHEET



**US Army Corps
of Engineers**
St. Paul District

"Providing engineering solutions to environmental problems"

Sent from: ☐ Primary Fax (all offices)

(612) 290-2256

☐ Other Fax _____

(number)

From (Name) <i>Terry Jorgenson</i>	Office Symbol <i>ED-GH</i>	Telephone No. <i>612-220-0598</i>	Releaser's Signature <i>Terry Jorgenson</i>
To (Name) <i>Jeff Pritchett</i>	Office Symbol <i>ABB</i>	Telephone No. <i>207-775-5400</i>	# Pages <i>6 includes cover</i>

Subject:

BAAP - Summary Sheets

Fax Number:

8-207-772-4762

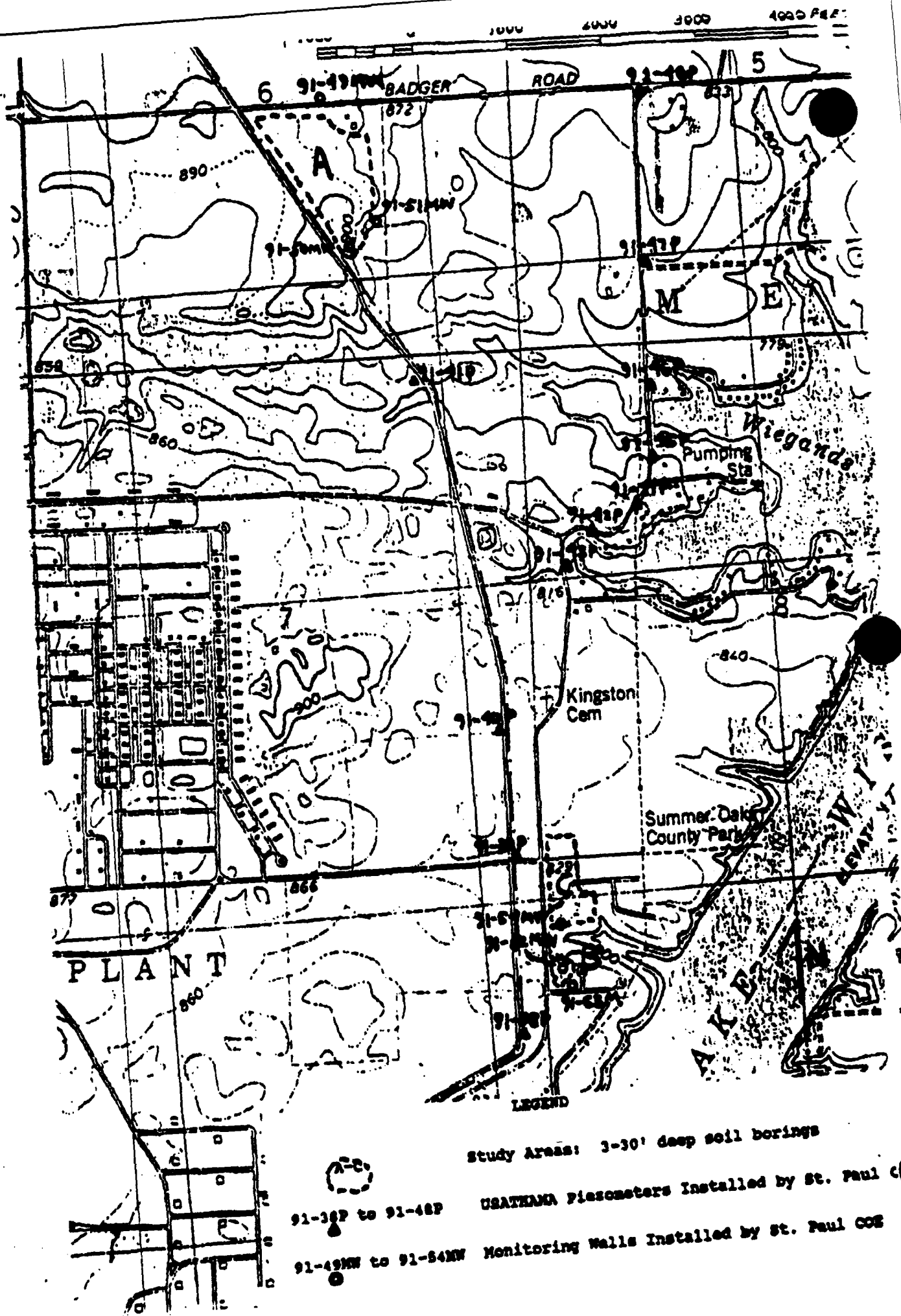
- ① vertical Surveys completed - The attached summary Sheets have the adjusted elevations for the 1 1/4" pvc risers or 2" monitoring well risers.
- ② , Horizontal Surveys Not yet completed,
- ③ , Call Terry Jorgenson for Technical details or additional info.

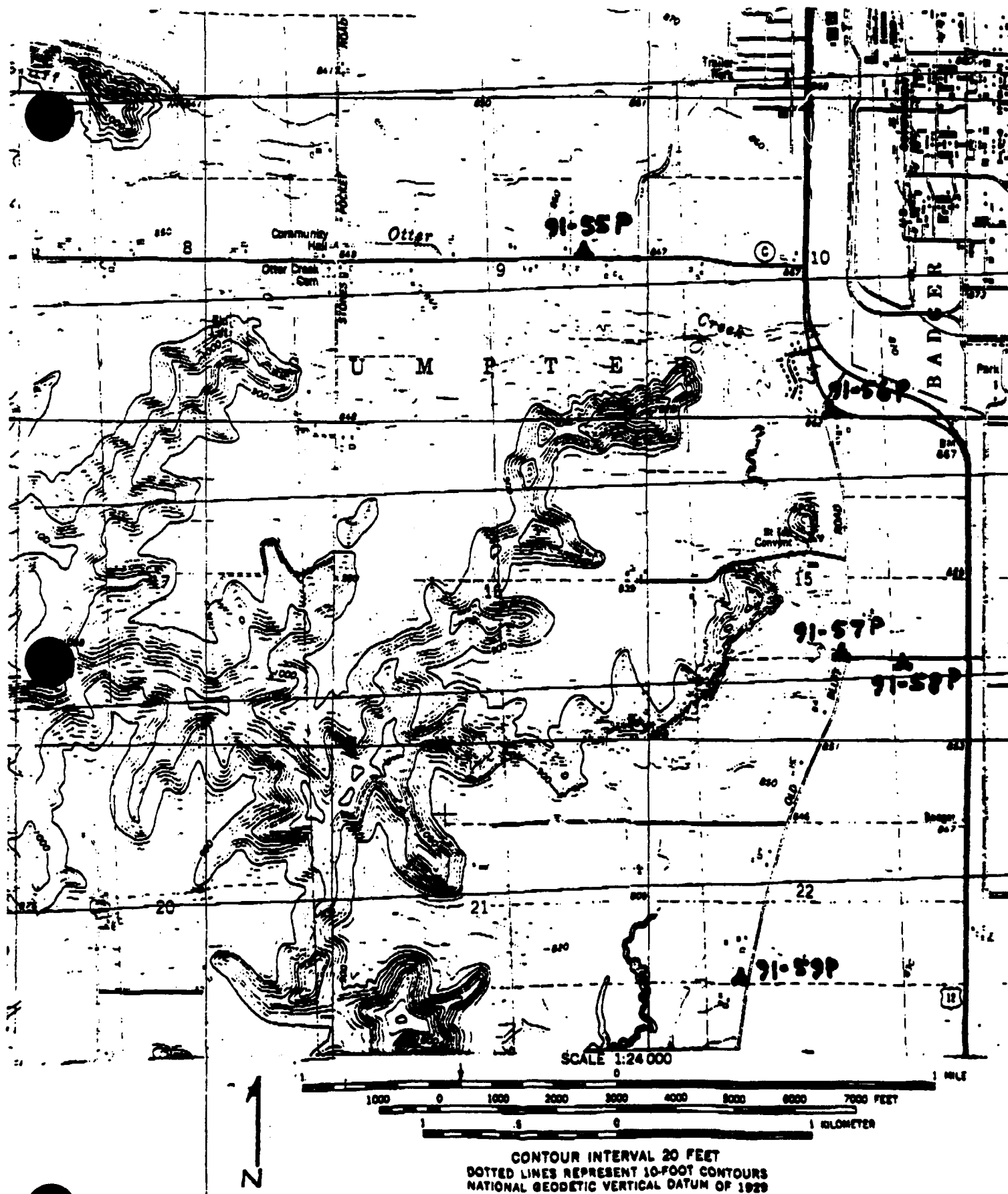
LIST OF PIEZOMETERS

ST. PAUL COE PIEZOMETER DESIGNATION	ELEVATION OF 1-1/4" STEEL RISER	ELEVATION OF SCREENED ZONE	WATER LEVEL ELEV. AFTER DEVELOPMENT	DATE OF MEASUREMENT
91-38 P	824.76	765.8 to 770.8	773.2	11-18-91
91-39 P	839.82	766.8 to 771.8	773.4	11-19-91
91-40 P	844.57	768.5 to 773.5	773.9	11-19-91
91-41 P	805.27	774.8 to 777.8	776.0	11-19-91
91-42 P	796.77	764.3 to 769.3	774.4	11-19-91
91-43 P	803.38	763.9 to 768.9	774.4	11-19-91
91-44 P	814.06	764.1 to 769.1	775.3	11-19-91
91-45 P	789.29	765.7 to 770.7	774.6	11-19-91
91-46 P	780.31	764.2 to 769.2	775.0	11-20-91
91-47 P	813.85	766.2 to 771.2	775.8	11-20-91
91-48 P	846.25	766.1 to 771.1	776.1	11-20-91
91-55 P	845.12	789.1 to 792.1	797.2	11-21-91
91-56 P	860.51	764.51 to 769.51	775.0	11-20-91
91-57 P	844.90	771.4 to 776.4	777.7	11-20-91
91-58 P	856.13	755.6 to 760.6	765.5	11-20-91
91-59 P	837.34	753.3 to 758.3	759.6	11-15-91

LIST OF MONITORING WELLS

St. Paul COE Monitoring Well Designation	Elevation of 2" Riser	Elevation of 6" Protective Casing	Elevation of Screen Zone
91-49 MW	891.15	891.28	778.8 to 768.8
91-50 MW	891.23	891.43	778.7 to 768.7
91-51 MW	860.69	860.89	779.6 to 769.6
91-52 MW	830.41	830.56	776.0 to 766.0
91-53 MW	828.40	828.19	776.0 to 766.0
91-54 MW	816.20	616.50	776.0 to 766.0





91-55P thru 91-59P Piezometer/Observation Well Locations

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